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Graduate Medical Education Rush-Presbyterian- St. Luke's Medical Center

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Rush
University
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Graduate Medical Education Rush-Presbyterian- St. Luke's Medical Center

Office of Graduate and Continuing
Medical Education
Rush-Presbyterian-St. Luke's
Medical Center
600 South Paulina Street
Chicago, Illinois 60612

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The concept of an academic health center has gained recognition throughout the United States as an important organizing principle for patient services, medical education, and scientific inquiry. At Rush-Presbyterian-St. Luke's Medical Center, our approach in the development of such a center is based on a commitment for orderly and balanced growth among all the components—patient care, education, and research.

The Graduate Medical Education program arises out of the strengths of these components. With all of them, it finds its purpose, justification, and direction in the priority we place on patient care. The emphasis comes from the long tradition of the original individual institutions, potentiated by their most recent combination a decade ago. We believe with Francis Well Peabody that “the secret of care of the patient is in caring for the patient,” and we agree that “without scientific knowledge a compassionate wish to serve mankind's health is meaningless, but scientific knowledge without wisdom and compassion is a frozen storehouse.”

At Rush-Presbyterian-St. Luke's, the stature of the medical staff and faculties expresses our standards of what I should like to call “physician-ship.” These are the qualities by which humane and principled men and women put knowledge and understanding, science and skills to use. To harbor ambitions to produce good doctors carries us deep into the enigma of character formation. Our observation tells us that the interns and residents of our house staff have had more than a disciplined experience in education. Whatever we do in education, it is clear that the power of example is one of the surest forces for elevating the quality of perception and performance to the standards we set, assay, and seek anew.

As house officers, you will develop confidence in your knowledge of health and disease and in your strengths in special areas of concern, yet you must bring to a new level of appreciation the sense that each patient is a person whose wholeness transcends the immediate physical problem. Your responsibility is to grow. Our responsibility here is to nurture your growth in every way that we can.

James A. Campbell, M.D.
President



In many ways, Rush-Presbyterian-St. Luke's offers its trainees today what it offered me as an intern in 1958: an outstanding medical staff, a rich mix of patients, opportunities for research, and in particular a tradition of imaginative responses to patient and community needs that goes back to the founding of Rush Medical College in 1837. In many ways it offers more, for a fully organized university now exists as an integral activity of the Medical Center offering patient care at every level of sophistication.

In his inaugural address the founder, Dr. Daniel Brainard, set the goals by which we still guide our course: "The health, the happiness and the life of your dearest friends, and your own, may and will, some day depend on the skill of some member of the medical profession To elevate the standard of skill and knowledge in the profession, to excite an honorable emulation among its members, to disseminate in this new region the principles of medical science . . . such are the objects held in view by the founders of this institution."

Such are the objects that continue to guide the clinical and educational opportunities we offer to interns and residents in teaching professional maturity. They have served as the basis for the remarkable degree of mutual respect between the house staff, the medical staff and faculty, and the administration. Because of these common perceptions, discussions with the members of the House Staff Association have led to a contract with which all are comfortable. We are learning together to enrich the health, the happiness, and the lives of our patients, and thus of ourselves. We invite you to join us.

William F. Hejna, M.D.
*Vice President for Medical Affairs and Dean,
Rush Medical College*

The goal of our graduate medical education program is to provide the new physician an environment in which a high level of professional competence can be developed. While the goal is fixed, there must be a high degree of flexibility involved in the program that is the path to that goal.

At Rush-Presbyterian-St. Luke's we recognize the inseparable relationship between first-rate practice and learning. The good physician must be expert in the acquisition as well as the application of knowledge and skills. We also recognize that there have been major changes in medical education on the one hand and in the expectations of those who have a right to sound health on the other. Education and training for a career of professional competence are designed to take these changes into account, and to respond to other significant changes as they occur. The departments establish the details of their training programs according to the requirements of the various specialties. The Office of Graduate and Continuing Medical Education coordinates the programs in light of the over-all goals, and maintains a continuing process of evaluation and re-evaluation. The Office also provides centralized services to residents and fellows for those details common to all, such as stipends, housing, and insurance.

Graduate medical education at Rush-Presbyterian-St. Luke's will continue to be responsive to the needs of new physicians striving to exercise their growing abilities with knowledge and compassion. We will appreciate your insights into a process that must constantly adapt if we are to reach a goal that must never change, the education of highly competent and effective physicians.

John S. Graettinger, M.D.

*Director of Graduate and Continuing Medical Education
and Dean of Faculty Affairs, Rush University*



The
Medical
Center

Introduction

Rush-Presbyterian-St. Luke's Medical Center offers training in 19 clinical departments and eight basic science departments to some 270 residents, trainees, and fellows each year. An additional clinical program is being developed in the newly established Department of Family Practice.

Presbyterian-St. Luke's Hospital and Health Center provide the major clinical base for graduate medical education; other hospitals affiliated with Rush University offer additional and supplemental opportunities. The 550 voluntary physicians on the attending staff of Presbyterian-St. Luke's Hospital are also faculty members of Rush University, as are many of the attending physicians and surgeons at Medical Center affiliates; the faculty of the University includes some 1,200 clinicians and scientists. The Professional Building on the Medical Center campus provides private office space for

members of the attending staff; postgraduate training may include opportunities to follow patients there.

In order to offer a broader range of clinical experiences, the Medical Center also draws upon a network of resources which includes contractual affiliation with nine hospitals and health centers in northern Illinois, and cooperative educational programs with 14 colleges and universities throughout the Midwest. Many of the Medical Center graduate programs offer rotation through one or more affiliated hospitals which are located in rural and semirural areas, suburbs, and a variety of urban situations. *

Presbyterian-St. Luke's Hospital itself is both a major referral center and a community resource; patients come from all parts of the metropolitan area and the nation, and from all economic and social strata.

History

The College of Health Sciences	1975
Rush University	1972
The College of Nursing	1972
Rush-Presbyterian-St. Luke's Medical Center	1969
Presbyterian-St. Luke's Hospital	1956
Presbyterian Hospital	1883
St. Luke's Hospital	1864
Central Free Dispensary	1857
Rush Medical College	1837

Programs in Graduate Medical Education

The programs offered in graduate medical education and the minimum requirements for Specialty Board eligibility are outlined in the accompanying diagram. In the subspecialties which require a year or more in a broad specialty as a prerequisite, programs for the entire sequence may be planned through the Departments in the Offices of Medical or of Surgical Sciences and Services. All GME-1 positions are offered through the National Intern-Resident Matching

Program. The Family Practice residencies are offered as separate programs in four of the Rush-affiliated hospitals. Separate programs in various other specialties are also offered at the Mt. Sinai Hospital Medical Center and at Christ and West Suburban Hospitals of the Rush network, under the supervision of Rush faculty members. Interested applicants should apply directly to the Departments at Presbyterian-St. Luke's and the other hospitals.

*Residents in Family Practice and other programs based at affiliated hospitals also rotate through Presbyterian-St. Lukes.

R1	R2	R3	R4	R5	R6	R7
Family Practice*						
Pediatrics		Peds. Specialties				
Internal Medicine		Allergy-Immun.				
		Med. Specialties				
Dermatology						
Neurology						
Psychiatry						
Pathology						Neuro P.
Obstetrics-Gynecology						
General Surgery					Plastic	
					CV-Thoracic	
			Otolaryngology			
			Urology			
			Neurosurgery			
			Orthopedics			
Ophthalmology						
Diagnostic Radiology						
Therapeutic Radiology						

**At Clinical Affiliates (Christ, Swedish Covenant, West Suburban and Community Memorial General Hospitals)*

Departments

The activities of the various basic science and clinical disciplines are carried out by the departments at Rush-Presbyterian-St. Luke's Medical Center. The departments are grouped into three offices: Biological and Behavioral Sciences and Services, Medical Sciences and Services, and Surgical Sciences and Services.

Each department is responsible for participation in the health care activities of the Center and for educational programs for health professionals at the undergraduate, graduate, and continuing levels; each is expected to encourage and conduct research. In the following pages, each department has described its activities.

The educational programs in the departments in Biological and Behavioral Sciences and Services are directed primarily to undergraduate medical and nursing students and to graduate students, but there are also programs for house officers. In the clinical departments, first-year graduate medical education programs are offered via the NIRMP in the major clinical specialties, and advanced programs, residencies, and fellowships are offered in all of the clinical specialties and subspecialties.

Facilities

Rush-Presbyterian-St. Luke's Medical Center is located in Chicago in the northeast corner of the 350-acre Medical Center District of the State of Illinois. It currently comprises 18 buildings. Two are new structures—a 192,000 square foot academic facility and an eight-story patient care and residential building for geriatric patients—completed in 1976. The academic building accommodates large class and laboratory activities, small group seminars, individual tutoring, and faculty offices and will house the Rush University Library; it has direct internal access to the Professional Building and to other patient care and research facilities. By the close of 1976, the Johnston R. Bowman Health Center for the Elderly will provide short-term restorative care, comprehensive ambulatory services, residential apartments, and the clinical setting for professional training in gerontology and geriatrics. A 173-bed facility, the Sheridan Road Pavilion, is operated as an integral part of the Medical Center.

The campus includes Presbyterian-St. Luke's Hospital, Health Center clinics, the Marshall Field IV psychiatric outpatient

building, research facilities, apartment buildings, the Laurence Armour Day School for children of employees and students, and the Rush Library, the oldest medical library in the city of Chicago. The Library houses approximately 70,000 volumes, subscribes to 750 periodicals, borrows documents and volumes through interlibrary loan, and processes Medlars and Medline requests. The Library also has an outstanding collection of rare medical books available for research.

Neighboring institutions within the Medical Center district include the University of Illinois Medical Center, Hektoen Institute, the Cook County Hospital and its Graduate School of Medicine and School of Nursing, the West Side Veterans Administration Hospital, the State of Illinois Public Health Laboratory, and the Illinois State Psychiatric Institute. Various Rush departments maintain vigorous cooperative programs with many of these institutions.

**Patient Care
at the Medical
Center**
*(Fiscal year ended
June 30, 1976)*

Bed capacity (excluding bassinets)	864
Total admissions (including newborns)	28,906
Total days care of patients (including nursery)	290,260
Average length of stay (adult and pediatric)	10.3
Occupancy (excluding nursery)	90.3%
Health Center visits	85,000
Emergency Room visits	44,000
Operations performed	33,000
Blood transfusions	25,000

Faculty and Staff

Rush Medical College	1200
College of Health Sciences	169
College of Nursing	91
Attending physicians	658
Total employees	5,492

Students

Medical students	335
Nursing students	267
Health Science students	37
Interns, residents, and fellows	270

Research

Opportunities are available for house officers to work on M.S. and Ph.D. programs in conjunction with their graduate medical education. Approximately 5 percent of the current budget of the Medical Center is devoted to research, and the proportion is growing. The commitment has involved annual expenditures in the area of \$5.7 million, funded by private agencies, foundations, corporations, federal and state agencies, and individuals.

The structure of the Medical Center includes a number of interdisciplinary committees for

patient care, where physicians, surgeons, basic scientists and psychologists, and nurses develop integrated therapies for patients with diseases such as multiple sclerosis and rheumatoid arthritis. The interdisciplinary approach also informs the research areas, especially in the approaches to cancer, cardiovascular diseases, and orthopedics. House staff members are encouraged to take an active role in the continuing exchange of information and insight.

Research Projects

Research projects in progress	460
Research reports published	432
Research awards, 1974-75	\$5,695,000

Without the participation of other institutions, Rush-Presbyterian-St. Luke's cannot fulfill its clinical and educational commitments to the people of Illinois. In 1975-76, Rush-Presbyterian-St. Luke's established an undergraduate medical education program in association with neighboring Mt. Sinai Hospital Medical Center. In addition, joint programs in nursing and graduate medical education are being developed. Mt. Sinai Hospital Medical Center is a 479-bed teaching institution providing outpatient and inpatient services to a broad metropolitan population.

Other clinical affiliates throughout northern Illinois also help to provide access for patients to all levels of care; they offer a broad base for clinical research into new treatment and prevention modalities and enhance the promulgation of new ideas. There is a significant exchange of educational opportunities as well. Staff members of affiliated hospitals share in teaching residents and medical students and participate in the continuing education programs of the Medical Center. Residents rotating through affiliated hospitals experience the complete range of medical needs in their specialty, and gain insight into the different needs of different communities. The affiliates are located in rural, semirural, and suburban areas and in different types of neighborhoods throughout the city. The clinical affiliates are:

Bethany Brethren/Garfield Park
Community Hospital, Chicago (197 beds)
Central DuPage Hospital,
Winfield (237 beds)
Christ Hospital, Oak Lawn
(615 beds)
Community Memorial General
Hospital, LaGrange (237 beds)
Galesburg Cottage Hospital,
Galesburg (234 beds)
Swedish Covenant Hospital,
Chicago (235 beds)
West Suburban Hospital,
Oak Park (267 beds)

Mile Square Health Center,
Chicago, an outpatient facility
with over 20,000 patients registered

Rush-Presbyterian-St. Luke's has also initiated cooperative programs with 14 colleges and universities from Colorado to Tennessee. These colleges and universities help to provide the health manpower needed to make the system work for the good of the patient, on an economically sound base and in a setting that enhances the humanistic aspects of health care training. Students of nursing and other health professions may begin their studies on the campus of an affiliated college and move to the Medical Center in their third or fourth year to complete professional training for the Bachelor of Science or Master of Science degree. Special programs with two of the colleges, Knox and Grinnell, allow medical students to combine their last year of college with their first year of medical training on the campus of the affiliated college. The educational affiliates are:

Beloit College, Beloit, Wisconsin
Carleton College,
Northfield, Minnesota
Coe College, Cedar Rapids, Iowa
The Colorado College,
Colorado Springs, Colorado
Cornell College,
Mount Vernon, Iowa
Fisk University,
Nashville, Tennessee
Grinnell College, Grinnell, Iowa
Illinois Institute of Technology,
Chicago, Illinois
Knox College,
Galesburg, Illinois
Lake Forest College,
Lake Forest, Illinois
Lawrence University,
Appleton, Wisconsin
Macalester College,
St. Paul, Minnesota
Monmouth College,
Monmouth, Illinois
Ripon College,
Ripon, Wisconsin





The
House Officer
at Rush-
Presbyterian-
St. Luke's

The Agreement

The preamble to the 1976 contract developed by officers of the House Staff Association and members of the Medical Center administration establishes their common understanding:

“The terms of this agreement recognize that it is in the best interests of the public and the Medical Center’s patients to assure the performance of the respective obligations of the parties, that provision of the highest possible quality of health care along with supervised graduate medical education is the first priority of the parties, that there is a need for flexibility within the working relationship of the parties, and that a fair and frank understanding of the rights and responsibilities of both parties is important at the onset of and throughout their relationship. . . .”

Each house officer is free to negotiate modifications in the basic contract, which has a one-year term.

In addition to terms for compensation and benefits, which will be discussed below, the basic contract also provides that:

- Appointment as a house officer carries with it an appointment in

Rush Medical College of Rush University.

- House officers will receive semi-annual written evaluations of performance from department chairmen and will in turn provide their own written evaluations of their program twice a year.
- There will be additional compensation when house officers are on in-hospital call more than an average of 10 nights per month.
- An elected House Staff Council will meet regularly to discuss and recommend improvements in the Graduate Medical Education Program.
- There is a formal grievance procedure, with provision for hearing and appeal.

The contract recognizes that while the House Staff Association has acted on behalf of its members, the Association is not a formal bargaining agent within the meaning of the National Labor Relations Act. House officers are eligible to be members of the Association, but membership is not required.

Stipends and Benefits

House staff stipends for 1976-77 are as follows:	Fourth year post-M.D.	15,673
First year post-M.D.	Fifth year post-M.D.	16,334
Second year post-M.D.	Sixth year post-M.D.	17,120
Third year post-M.D.	Seventh year post-M.D.	17,907
	Eighth year post-M.D.	18,328

Other Benefits include:

- Individual and family outpatient coverage in Blue Shield or the Anchor Organization for Health Maintenance Plan, at nominal monthly rates.
- Individual and family coverage in Blue Cross at no charge.
- Professional liability insurance for Medical Center-related activities.
- Disability insurance and workmen’s compensation.
- Voluntary participation in Medical Center-approved tax sheltered annuity programs.
- Professional courtesy on drugs from the Medical Center pharmacy for house officers and their immediate families.
- Uniforms provided and maintained at no cost.
- Parking privileges.
- Housing as available in Medical Center apartments.
- Participation in Medical Center pension plan at no cost.
- Three weeks vacation with pay.
- Maternity leave, Armed Services

*Other Benefits
include . . .*

Reserve duty leave, and educational leaves as mutually agreed with department chairmen.

- Customary lodging and meal reimbursement while on call.
- Free life insurance.
- Free physical examinations.

- Assistance, where appropriate, in licensure, housing, placement, and application for individual specialty board requirements.
- Participation in Medical Center tuition reimbursement program.

**The
House Staff
Association**

The House Staff Association is a membership organization. Officers for 1976-77 are:

Harold Kessler, M.D.

(internal medicine), president

Alan M. Sadove, M.D.

(general surgery), vice president

Dino Delicata, M.D.

(general surgery), secretary

Richard Fogerty, M.D.

(internal medicine), treasurer

Anthony Savino, M.D.

(orthopedic surgery),

social chairman

representatives for a number of Medical Center-wide faculty and medical staff committees, including Student Affairs, Admissions, Graduate Medical Education, the Hospital Committee on Research, the Hospital Utilization Review Committee, the Joint Accreditation Committee, and a variety of area committees such as Infectious Disease and Aseptic Control.

The House Staff Association Executive Committee voted in June 1975 to join the National Physicians House Staff Association.

The executive committee meets monthly and there are periodic general assemblies. The Association provides house staff

Housing

The Medical Center maintains a limited number of apartments on campus, and there are unfurnished apartments ranging from efficiency to two-bedroom within walking distance. In addition, the city and suburbs offer a diversity of housing and life styles. Because the Medical Center is located just slightly to the west of downtown Chicago, it is within comfortable commuting

distance, half an hour or so, of all areas of the city and most adjacent suburbs. Apartments on campus are within 15 minutes of the cultural, shopping, and recreational activities of Chicago's Loop, the parks and beaches along Lake Michigan, and the intellectual, cultural, and social resources of the entire city.

**For Further
Information:**

The Office of Graduate and Continuing Medical Education coordinates all the post-M.D. educational programs, maintaining a continuous process of evaluation and re-evaluation. The Office also provides centralized service to house officers and trainees for questions regarding stipends, housing, insurance, and related matters.

Contact:

Office of Graduate and Continuing
Medical Education
Rush-Presbyterian-St. Luke's
Medical Center
600 South Ashland Street
Chicago, Illinois 60612
312/942-5495



Biological and Behavioral Sciences and Services

David I. Cheifetz, Ph.D.
Acting Associate Dean
for Biological and Behavioral
Sciences and Services
Dean
College of Health Sciences and
Vice President
for Scientific Affairs

Department of Anatomy

**SCHMIDT, ANTHONY J., Ph.D.,
Chairman**

DINSMORE, CHARLES E., A.B., Ph.D.,
Assistant Professor, RCHS

HUGHES, W. FRANK, A.B., M.S.,
Ph.D., Assistant Professor, RCHS and
RMC

HOVDE, CHRISTIAN A., A.B., M.A.,
Ph.D., D.D., Assistant Professor, RCHS
and RMC (also Psychiatry, and Religion
and Health)

The primary role of the anatomical sciences is to provide fundamental knowledge of the architecture of the human body and concepts relevant to its function. All branches of medicine are served by effective personal experiences in the topographic exploration of man's functioning biological structure, at both the gross and the microscopic levels. The education and research encompassed by the anatomical sciences include gross human anatomy, cellular and histologic anatomy, neuroanatomy, and embryology.

Understanding and application of anatomy are of particular value to the surgical services. Accordingly, the Department of Anatomy collaborates with the Department of General Surgery to offer a preceptorial and laboratory program in surgical anatomy at specific intervals during the academic year. The Department also offers a series of short-term modules of instruction in regional anatomy, primarily for residents in specialty programs.

Advanced courses, currently accredited by the Graduate College of the University of Illinois, are offered during alternate years. These include: (1) Morphologic

KHEDROO, LAWRENCE G., A.B.,
D.D.S., M.D., Assistant Professor,
RCHS and RMC (also General Surgery)
MAIBENCO, HELEN C., B.S., M.S.,
Ph.D., Professor, RCHS, RMC and RCN
SCHMIDT, ANTHONY J., B.A., M.S.,
Ph.D., Professor, RCHS and RMC
SEALE, RAYMOND U., B.S., A.M.,
Ph.D., Associate Professor, RCHS and
RMC
WAGONER, NORMA E., B.A., Ph.D.,
Assistant Professor, RCHS and RMC

and Physiologic Adaptations to Growth, Aging and Injury; (2) Experimental Morphogenesis (Embryology); and (3) Cell Biology of Vertebrate Repair and Regeneration.

Research and scholarship in the anatomical sciences is encouraged. Currently, interdisciplinary collaboration includes investigations into the biomechanics of human motion, general and specific myopathies, ophthalmopathies, and neuropathogenesis.

Members of the faculty of the Department are currently investigating morphological changes in drug-induced dyskinesias; DNA synthesis during gestation; cell population renewal in oviduct and cervix; microbial endocarditis; cytological and molecular biology of wound healing, repair and regeneration in muscular, nervous, soft connective, skeletal and other tissues; and teratology, particularly congenital anomalies of appendages.

Inquiries regarding additional programs and general information relative to the Department's activities are welcome.

Department of Biochemistry

**SKY-PECK, HOWARD H., The John W.
and Helen H. Watzek Chairman**

BANDI, ZOLTAN L., Ph.D., Assistant
Professor, RCHS and RMC, Assistant
Scientist, PSLH

BAYS, JAMES P., Assistant Professor,
RCHS and RMC

BEZKOROVAINY, ANATOLY, Ph.D.,
Professor, RCHS and RMC and Senior
Scientist, PSLH

BOOYSE, FRANCOIS M., Ph.D.,
Associate Professor, RCHS and RMC
CHANG, MIN-SHUAN, Ph.D., Instructor,
RCHS
COHEN, MAYNARD M., M.D., Ph.D.,
Professor, RCHS and RMC and Senior
Attending, PSLH (also Neurological
Sciences)
COLE, EDMOND R., Ph.D., Associate
Professor, RCHS and RMC and Associate
Scientist, PSLH (also Hematology)

Key: RMC—Rush Medical College; RCHS—Rush College of Health Sciences;
RCN—Rush College of Nursing; PSLH—Presbyterian-St. Luke's Hospital

Biochemistry . . .

- DUBIN, ALVIN, M.S., Associate Professor, RCHS and RMC
- HARRIS, LELAND, Ph.D., Professor, RCHS and RMC
- HARRISON, WILLIAM H., Ph.D., Professor, RCHS and RMC (also Neurological Sciences)
- HAYASHI, JAMES A., Ph.D., Professor, RCHS and RMC and Senior Scientist, PSLH
- HOF, HILDEGARD I., Ph.D., Assistant Professor, RCHS and RMC (also Psychiatry)
- Professor, RCHS and RMC (also Neurological Sciences)
- KACHMAR, JOHN F., Ph.D., Associate Professor, RCHS and RMC and Senior Scientist, PSLH
- KORNEL, LUDWIG, M.D., Ph.D., Professor, RCHS and RMC and Senior Attending, PSLH (also Internal Medicine)
- KUETTNER, KLAUSE E., Ph.D., Associate Professor, RCHS and RMC (also Orthopedic Surgery)
- MATTENHEIMER, HERMANN G.W., M.D., Professor, RCHS and RMC and Senior Scientist, PSLH
- MILLER, ROBERTA J., M.D., Instructor, RCHS
- NICHOLS, JAMES H., Ph.D., Instructor, RCHS and RMC
- QUARFOOT, ALAN J., Ph.D., Instructor, RCHS
- RAFELSON, MAX E., JR., Ph.D., Professor, RCHS and RMC and Senior Scientist, PSLH
- SKY-PECK, HOWARD H., Ph.D., Professor, RCHS and RMC and Senior Scientist, PSLH
- SLY, DAYLE A., Ph.D., Instructor, RCHS and RMC
- SWENSON, JOHN C., Ph.D., Instructor, RCHS
- TULLOSS, JAMES H., Ph.D., Instructor, RCHS
- WEINSTOCK, ALBERT, Ph.D., Assistant Professor, RCHS and RMC (also Pathology)
- WHISLER, WALTER W., M.D., Ph.D., Professor, RCHS and RMC and Senior Attending, PSLH (also Neurosurgery)

Members of the Biochemistry Department participate in three major interrelated functions. These consist of clinical chemistry diagnostic services, teaching of basic science and medical education in the Rush College of Health Sciences and Rush Medical College, and biomedical research. The clinical laboratory is one of the most active, up-to-date laboratories in the country, performing approximately 1,300,000 tests per year; it provides opportunity for the teaching of human biology and the biochemical basis for disease to medical and graduate students, and for the training of clinical chemists. Members of the faculty conduct formal lectures, seminars, specialty rounds, elective courses in biochemistry and research methodology for medical students, graduate students, research fellows, interns, residents, and staff. Ongoing research programs and facilities of the Department are used in the teaching of graduate and medical students who elect to further their education in medical sciences.

The Department maintains a varied and extensive program of

research. Studies on the mechanism and regulation of blood platelet interactions (aggregation) and platelet-vessel wall interactions are continuing in order to better understand the physiological role of platelets and the vessel wall (endothelial cells) in maintaining normal hemostasis. Studies are continuing on the maintenance and culture of identifiable aortic endothelial cells *in vitro* in order to use these cells as an *in vitro* synthetic vessel wall model for studying the molecular events and the nature of the substances involved in the phenomena of platelet-vessel wall interactions and subsequent thrombosis. The specific areas of investigation are: (1) the characterization, maintenance, and propagation of aortic endothelial cells in culture; (2) the biochemical characterization and ultrastructural localization of collagenous-like proteins and thrombosthenin-like contractile proteins synthesized by aortic endothelial cells; (3) the reactions and factors influencing platelet-endothelial interactions; (4) the nature of platelet-damaged endothelial interaction; and (5) *in*

vitro endothelialization of synthetic graft prostheses.

In studies of human milk and colostrum, several glycoproteins have been isolated from human colostrum whey. Their molecular weights were near 30,000 and carbohydrate accounted for 75 percent of their mass. It is concluded that this newly discovered group of substances worked in concert with the smaller oligosaccharide compounds found in human milk to maintain an acidic environment in the breast-fed infant's intestinal tract.

Transferrin receptor from rabbit reticulocytes was isolated in small amounts, and its molecular weight proved to be near 120,000. It behaved like a beta-globulin using agarose gel electrophoresis methods. Methods using DEAE-cellulose columns coupled with Sepharose-6B chromatography are now being perfected to permit the isolation of larger amounts of this protein. This will permit us to thoroughly characterize this protein and thus provide more information on the mode of iron uptake by immature red cells.

An investigation into the protection of primates from dental caries by immunization with extracellular bacterial enzymes has been under way for the past three years. The results indicate that immunization with extracellular enzymes of oral microorganisms can protect against dental caries; that the protection is accompanied by production of enzyme-inhibiting substances in the serum; and that the enzyme-inhibiting substances in the immune sera are removed by human anti IgM.

The molecular organization of the extracellular cartilage matrix and its relationship to the cells is being studied with the hope that a knowledge of the structure and metabolism of normal cartilage will lead to an understanding of the processes which are altered in the diseased tissue. This laboratory has been able to show that mammalian

lysozyme plays a role in governing this "state of aggregation" of matrix proteoglycans and therefore may regulate cartilage calcification. Furthermore, aggregated proteoglycans seem to be diminished in the osteoarthritic cartilage matrix. Lysozyme is both elevated and present in an active form and can be implicated in the etiology of degenerative arthritis.

An assay procedure has been developed to study estradiol-receptor-binding in human tumor tissues. This method utilizes the ability of charcoal-dextran to adsorb free estradiol and the ability of nafoxidine to inhibit specific estradiol-binding. The use of this blocking agent permits quantitation between nonspecifically bound estradiol and receptor-bound estradiol. The assay has been inexpensive, reproducible, and capable of analyzing large numbers of samples in a relatively short time. The results of this investigation have shown that tumors with estrogen receptor have higher tissue levels of estrogen than tumors without specific estrogen receptor. This may indicate that, in the presence of estrogen receptor, the estrogen utilization by the tumor is enhanced.

Other studies in the Department of Biochemistry deal with the physical and chemical properties of human alpha-amylase obtained from pancreas and its formation of isoenzymes; the kinetics of creatine phosphokinase (CPK) obtained from various human tissues and the ability to quantitatively measure the extent of heart damage by distinguishing CPK isoenzymes immunologically.



Department of Biomedical Engineering

CHEIFETZ, DAVID I., Ph.D., Acting Chairman
ACKERMAN, L. V., Ph.D., M.D., Assistant Professor, RCHS and RMC and Assistant Scientist, PSLH (also Radiology)
AGARWAL, GYAN C., B.S., B.S.E.E., M.S.E.E., Ph.D., Visiting Professor, RCHS and RMC
AGGARWAL, RAJ K., Ph.D., Assistant Professor, RCHS and RMC and Assistant Scientist, PSLH (also Internal Medicine)
ANDRIACCHI, THOMAS, Ph.D., Assistant Professor, RCHS and RMC and Assistant Scientist, PSLH (also Orthopedics)
BACUS, JAMES, B.S., Ph.D., Associate Professor, RCHS and RMC and Associate Scientist, PSLH (also Internal Medicine)
BRUESCHKE, ERIC, M.D., Visiting Professor, RCHS and RMC (also Family Practice)
CHEIFETZ, DAVID I., Ph.D., Professor, RCHS, RCN, and RMC and Senior Scientist, PSLH (also Psychology)
DJORDJEVICH, LJUBOMIR, Ph.D., Assistant Professor, RCHS
DOW, JAMES W., B.S., M.D., Professor, RCHS and RMC and Senior Scientist, PSLH (also Internal Medicine)

Biomedical Engineering is directly concerned with the application of the concepts and methods of the engineering sciences in biology, medicine, and the delivery of health care. The department is divided into several sections: (1) Automation in Health Education, directed by Gerald Gottlieb; (2) Health System Dynamics, directed by Jeffrey Levett; (3) Clinical Engineering, directed by Jeffrey Levett; and (4) Scientific Computation, directed by Gerald Masek. Members of the Department work with members of other

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MASEK, GERALD, B.S.E., M.S.E., Ph.D., Assistant Professor, RCHS and RMC and Assistant Scientist, PSLH
MICHAEL, JOEL A., B.S., M.S.C., Ph.D., Associate Professor, RCHS and RMC (also Physiology)
PASSOVOY, MITCHELL, B.A., M.A., Assistant Professor, RCHS and RMC and Senior Scientist, PSLH (also Internal Medicine)
PRICE, R., M.S., Instructor, RCHS and RMC
ROSEMAN, DAVID, M.D., Associate Professor, RCHS and RMC and Associate Scientist, PSLH (also Surgery)
SANDBERG, ALLEN, B.S., M.S., Sc.D., Assistant Professor, RCHS and RMC and Assistant Scientist, PSLH
YASNOFF, WILLIAM A., M.D., Instructor, RCHS

departments throughout the Medical Center, and are involved in teaching both medical and nursing students as well as residents.

Research projects range from the development of experimental models of the pathophysiology of multiple sclerosis, in order to evaluate drug effects, to pattern recognition studies of peripheral blood cells.

The department is involved with electrical safety for the Medical Center, data processing, and technological teaching.

Department of Immunology

GEWURZ, HENRY, M.D., The Thomas J. Coogan Sr. Chairman
BAKER, PATRICIA, B.S., M.S., Assistant Professor, RCHS and RMC
CLAUS, DAVID R., B.S., M.S., Ph.D., Instructor, RCHS and RMC
DEAN, MALCOLM, M.D., Lecturer, RCHS and RMC
DICAMELLI, RALPH F., B.S., Ph.D., Instructor, RCHS and RMC
FIEDEL, BARRY A., B.S., Ph.D., Assistant Professor, RCHS and RMC and Assistant Scientist, PSLH
GEWURZ, ANITA T., B.S., M.D., Instructor, RCHS and RMC and Adjunct Scientist and Adjunct Attending, PSLH (also Pediatrics)

GEWURZ, HENRY, B.A., M.D., Professor, RCHS and RMC and Senior Scientist and Senior Attending, PSLH (also Pediatrics and Internal Medicine)
GOLDEN, HARVEY E., B.A., M.D., Associate Professor, RCHS and RMC and Associate Attending, PSLH (also Internal Medicine)
LIM, DIOSDADO, M.D., Lecturer, RCHS and RMC
LINT, THOMAS F., B.S., M.S., Ph.D., Assistant Professor, RCHS and RMC and Assistant Scientist, PSLH
LUSKIN, ALLAN, B.S., M.D., Assistant Professor, RCHS and RMC and Instructor in Internal Medicine, PSLH

Immunology . . .

MERKEL, FREDERICK K., B.S., M.D., Associate Professor, RCHS and RMC and Associate Attending, PSLH (also Surgery and Internal Medicine)
 OSMAND, ALEXANDER P., B.S., Ph.D., Assistant Professor, RCHS and RMC and Assistant Scientist, PSLH
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 SASSETTI, RICHARD J., B.S., M.D., Associate Professor, RCHS and RMC and Associate Attending, PSLH (also Internal Medicine)

The Department of Immunology provides immunochemical and serologic diagnostic procedures for the Medical Center and evaluates the immune competence and ongoing immune reactions in patients with a variety of diseases.

The primary investigative interests of the Department are: (1) the clinical, developmental, and experimental biology of the effectors of the immune response, particularly the complement system; (2) the clinical relevance of the acute phase and its interrelationship with the immune response in health and disease, particularly in neoplasia, blood vessel diseases, and allergic responses; and (3) the innovation and implementation of new approaches which utilize the immune response and immunoassays to aid the rapid diagnosis and treatment of disease. Study emphasizes the chemistry and immunobiology of the reactants of the "acute phase," particularly C-reactive protein

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 SUYEHIRA, LISBETH, B.S., Instructor, RCHS and RMC and Adjunct Scientist, PSLH
 THADHANI, KALOO, M.D., Lecturer, RCHS and RMC
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 ZEITZ, HOWARD, M.D., Assistant Professor, RCHS and RMC and Assistant Attending, PSLH (also Internal Medicine)

(CRP), a nonantibody serum protein which shares several structural and functional features with the immunoglobulins. CRP has emerged as a potent modulator of immune and nonimmune inflammatory responses at the level both of the complement system and the T-lymphocyte; elaboration of the underlying mechanisms and a clinical pharmacology based upon these interactions is under active exploration. Other current projects deal with immune mechanisms in arthritis, nephritis, and hepatitis.

Members of the Department teach undergraduate and postgraduate courses in Immunology and participate in hospital specialty rounds and seminar programs. Three-month elective clerkships are available for undergraduate students. Research and clinical fellowships for longer periods are arranged on an individual basis.

Department of Microbiology

DEINHARDT, FRIEDRICH W., M.D., **Chairman**
 BARAM, PETER, B.S., M.S., Ph.D., Visiting Professor, RCHS and RMC
 BERGHOLZ, CAROLYN M., B.A., M.S., Ph.D., Instructor, RCHS and RMC
 CASTO, BRUCE C., B.S., M.S., Sc.D., Associate Professor, RCHS and RMC
 DEINHARDT, FRIEDRICH W., M.D., Professor, RCHS and RMC and Senior Scientist, PSLH
 DEINHARDT, JEAN B., B.Sc., Ph.D., Associate Professor, RCHS and RMC
 FALK, LAWRENCE A., B.A., M.A., Ph.D., Associate Professor, RCHS and RMC and Associate Scientist, PSLH

FISHER, LESTER E., D.V.M., Associate Professor, RCHS and RMC
 GAVITT, FRANCES, B.A., M.S., Ph.D., Visiting Professor, RCHS and RMC
 GOODHEART, CLYDE R., B.S., M.S., M.D., Professor, RCHS and RMC
 HATCH, GEORGE G., B.A., M.A., Ph.D., Instructor, RCHS and RMC
 LANDAU, WILLIAM, B.A., M.S., Ph.D., Associate Professor, RCHS and RMC and Associate Scientist, PSLH
 LEE, YIH SHYONG, B.S., Ph.D., Instructor, RCHS and RMC
 LEVIN, STUART, B.M., M.D., Associate Professor, RCHS and RMC and Senior Scientist, PSLH (also Internal Medicine and Preventive Medicine)

Microbiology . . .

MARCZYNSKA, BARBARA, M.S.,
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RMC
NONOYAMA, MEIHAN, B.S., M.S.,
Ph.D., Associate Professor, RCHS and
RMC
NORTHROP, ROBERT L., B.S., D.V.M.,
Ph.D., Visiting Associate Professor,
RCHS and RMC
OGDEN, JAMES D., B.S., D.V.M.,
Assistant Professor, RCHS and RMC
PETERSON, DAVID A., B.S., M.S.,
Ph.D., Assistant Professor, RCHS and
RMC and Assistant Scientist, PSLH
SCHUYTEMA, EUNICE H. C., B.S.,
M.S., Ph.D., Assistant Professor, RCHS
and RMC and Assistant Scientist, PSLH

WELSH, THOMAS J., B.S., D.V.M.,
Ph.D., Assistant Professor, RCHS and
RMC
WIDRA, ABE, B.A., M.S., Ph.D., Visiting
Associate Professor, RCHS and RMC and
Consulting Scientist, PSLH (also Der-
matology)
WOLFE, LAUREN G., D.V.M., M.S.,
Ph.D., Professor, RCHS and RMC
YAJIMA, YOSHIHIRO, B.S., M.S.,
Ph.D., Instructor, RCHS and RMC

The Department of Microbiology provides bacteriological diagnosis, identification of parasites and fungi, and routine virus isolation. Serological studies available include hemagglutination, complement fixation, agar gel diffusion, and more involved studies such as neutralizing antibody titration and fluorescent antibody examination.

The Department maintains a marmoset colony of some 1,400 animals, consisting of a breeding colony of 175 permanent pairs, a nursery, and experimental colonies, the last primarily concerned with studies of oncogenic viruses, hepatitis, and chronic degenerative diseases of the central nervous system. Establishment of a primate model for brain tumors is being pursued in collaboration with the Department of Neurosurgery. Microbiology is also cooperating with the Department of Obstetrics and Gynecology to define the association, if any, between herpes simplex virus type 2 and cervical carcinomas and to develop a suitable experimental primate model. In collaboration with Medical and Surgical Oncology, lymphocytotoxicity is being studied in patients with stage III or IV breast carcinoma, classified as slowly progressive or rapidly progressive diseases, and compared to normal controls.

Studies continue, with the Section of Hepatology, Department of Medicine, on experimentally

induced hepatitis A in marmosets and on characterization of the infectious agent(s) of hepatitis A. The susceptibility of marmosets to multiple sclerosis is being investigated in collaboration with the Department of Neurological Sciences. The hypothesis under study is that persistent, latent infection with rubella virus plays a role in the etiology of some forms of rheumatoid arthritis.

The Bacteriology Section and the Infectious Disease Section of the Department of Medicine are analyzing computer-generated data of antibiotic susceptibility patterns as they relate to hospital infection surveillance. Studies are also being conducted on bacterial isolates of particular medical or epidemiological interest.

Members of the Department teach in Rush Medical College and in the Department of Microbiology of the University of Illinois Graduate College. They also participate in hospital rounds, especially infectious diseases. A three-month rotation through the Department is available as part of the residencies in Internal Medicine, Surgery, and Pathology. Research fellowships for longer periods are arranged on an individual basis.



Department of Pharmacology

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 Attending, PSLH (also Internal Medicine)
CARSON, PAUL E., M.D., Professor,
 RCHS and RMC and Senior Attending,
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ECANOW, BERNARD, Ph.D., Visiting
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FRISCHER, HENRI, M.D., Ph.D.,
 Associate Professor, RCHS and RMC and
 Associate Attending, PSLH (also
 Hematology)
GDALMAN, LOUIS, R.Ph., Emeritus and
 Emeritus PSLH (also Internal Medicine)
MOON, BYONG H., Ph.D., Assistant
 Professor, RCHS and RMC and Assistant
 Scientist, PSLH (also Internal Medicine)

NOOTENS, RAYMOND H., M.D.,
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 Assistant Attending, PSLH (also
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POWERS, RICHARD J., M.D., Assistant
 Professor, RCHS and RMC and Associate
 Attending, PSLH (also Internal Medicine)
PRANCAN, ARTHUR V., Ph.D., Assistant
 Professor, RCHS and RMC and Assistant
 Scientist, PSLH (also Internal Medicine)
RIECKMANN, KARL H., M.D., Visiting
 Professor, RCHS and RMC and Con-
 sultant, PSLH
TRENHOLME, GORDON M., M.D.,
 Assistant Professor, RCHS and RMC and
 Assistant Attending, PSLH (also Internal
 Medicine)

The Department of Pharmacology provides consultation in clinical pharmacology, supervises and coordinates the pharmacology teaching program for medical and graduate students, participates in the nursing and allied health pharmacology teaching program, and provides continuing education for house officers and staff and facilities for clinical and laboratory investigation. Present areas of special interest include the role of enzymes and genetically determined alterations of enzymes in cellular and drug metabolism as related both to normal regulatory processes and to clinical disorders, the chemotherapy of malaria and of cancer, and the role of prostaglandins, especially in shock. These investigations are pursued at the molecular, cellular, and clinical levels and are related to human enzyme variations, genetic and acquired.

The studies on malaria are related to the chemotherapy and immunology of chloroquine-resistant malaria and toxic and metabolic effects of antimalarial drugs. The studies on the role of human enzyme variation, especially as affected by the administration of drugs in the regulation of metabolism in health and in disease, are related to enzyme deficiencies as well as to clinical disorders such as diabetes mellitus, gout, uremia, hepatitis,

malnutrition, and certain neoplastic diseases. Investigations of cell membrane-cytoplasmic interactions and the effects of drugs on them have revealed several specific mechanisms which may be operative physiologically in human red cells; for instance, cytoplasmic interactions with membrane NAD(P)ase have been shown to alter the structure and function of several enzymes related clinically to susceptibility to hemolysis, to the regulation of carbohydrate metabolism, and the conversion of methemoglobin to hemoglobin. The studies of endotoxin shock concern the efficacy of corticosteroids as therapeutic agents and metabolic changes responsible for the observed beneficial effect of these drugs. The role of prostaglandins in shock is also under investigation; these compounds have been shown not only to contribute to the shock syndrome but also, paradoxically, to alter its lethal course.

The Department maintains the Laboratory for Red Cell Genetics and the Pharmacology Research Laboratory. Students, house officers, and fellows are encouraged to join in the clinical and investigational efforts of this department on a part time, quarterly, or yearly basis. Formal training programs leading to the Ph.D. degree and the M.D./Ph.D. degree are being formulated.

Department of Physiology

EISENBERG, ROBERT S., Ph.D., The Francis N. and Catherine O. Bard Chairman

EISENBERG, ROBERT S., Ph.D., Professor, RCHS and RMC

GILAI, ARIEH, Ph.D., Assistant Professor, RCHS

GOTTLIEB, GERALD, Ph.D., Associate Professor, RCHS and RMC (also Biomedical Engineering)

HEGYVARY, CSABA, M.D., Associate Professor, RCHS and RMC (also Internal Medicine)

MATHIAS, RICHARD T., Ph.D., Assistant Professor, RCHS

MICHAEL, JOEL A., Ph.D., Associate Professor, RCHS and RMC (also Neurological Sciences)

ROVICK, ALLEN A., Ph.D., Associate Professor, RCHS and RMC (also Biomedical Engineering)

SCHAUF, CHARLES L., Ph.D., Associate Professor, RCHS and RMC (also Neurological Sciences and Biomedical Engineering)

STARR, MATTHEW C., Ph.D., Assistant Professor, RCHS and RMC

Research activities of the Department of Physiology fall into three broad areas: (1) biological membranes and their various processes; (2) information processing in the central nervous system; and (3) control of the peripheral and the cerebral vasculature.

Active transport mechanisms in biological membranes are being studied; procedures are being developed to identify and purify the digitalis receptor of the heart, an essential step in a long-term project to learn more about the reaction mechanisms of the sodium-pump as it relates to the actions of digitalis. The electrical properties of skeletal and cardiac muscle membranes are also being studied through the use of experimental and theoretical mathematical approaches; one focus of this work is on the phenomenon of excitation-contraction coupling. Finally, voltage-clamped giant axons are being studied to elucidate the voltage-dependent permeability changes characteristic of nerve membranes and to determine the effects of different drugs on these processes.

Neurophysiological studies of information processing in the mammalian central nervous system are directed toward an understanding of the mechanisms of the visual system (including the processes involved in detection of a moving retinal image), the effects of hypoxia and hyperthermia on such processes, and the

organization of the human motor system at the level of the spinal cord.

Circulatory studies are underway at a number of different levels. Different parts of the central nervous system show varying sensitivity to hypoxia, and studies are underway to determine the role that regional differences in the cerebrovasculature may play in this phenomenon. Another project is aimed at evaluating the effects of the arterial pressure pulse on the ability of blood vessels to maintain constrictor tone and on the ability of the vascular smooth muscle of small blood vessels to respond to vaso-active agents. Finally, the relationship between the nutrient requirements of a tissue and the microvasculature is being investigated.

Members of the Department teach at both undergraduate and postgraduate levels in the Medical Center and collaborate with other departments within the Medical Center and in neighboring institutions in both teaching and research. Teaching activities at Rush include a core Physiology course, elective courses, and supervision of research training.



Department of Psychology and Social Sciences

- CHEIFETZ, DAVID I., Ph.D., Chairman**
BERKSON, GERSHON B., B.A., M.S.,
 Ph.D., Visiting Professor, RCHS
BRAITMAN, LEONARD, M.A.,
 Instructor, RCHS and RMC
BROCKEN, CECILIA, B.S., M.A., Ph.D.,
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 Associate Scientist, PSLH (also
 Pediatrics)
BROWN, GEORGIA, Dr.P.H., Assistant
 Professor, RCHS
CHEIFETZ, DAVID I., M.A., Ph.D.,
 Professor, RCHS, RCN, and RMC and
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CHRISTMAN, LUTHER, B.S., Ed.M.,
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 Senior Scientist, PSLH (also College of
 Nursing)
CLARK, DAVID C., B.A., Instructor,
 RCHS and RMC (also Psychiatry)
COUNTE, MICHAEL A., B.A., M.A.,
 Ph.D., Assistant Professor, RCHS and
 RMC
DAVIS, LUCILLE, A.A., B.S.N., M.S.N.,
 Ph.D., Associate Professor, RCHS and
 RMC (also College of Nursing)
EXUM, DOLORES B., B.A., M.S.W.,
 Associate, RCHS and RMC (also
 Preventive Medicine)
FELDMAN, HOWARD S., A.B., M.S.,
 Ph.D., Assistant Professor, RCHS and
 RMC and Assistant Scientist, PSLH
FUNK, JEANNE, A.B., Ph.D., Assistant
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GARRON, DAVID C., B.A., M.A., Ph.D.,
 Professor, RCHS and RMC and Senior
 Scientist, PSLH
GUISE, GRACIA, B.S., M.S., Associate,
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HARTINGS, MICHAEL F., B.A., M.S.,
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 RMC and Associate Scientist, PSLH
HEGYVARY, SUE T., B.S.N., Ph.D.,
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- KASZNAK, ALFRED W., B.S., M.A.,**
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LINDNER, RONALD S., B.A., Ph.D.,
 Associate Professor, RCHS and RMC and
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LIPGAR, ROBERT M., Ph.D., Visiting
 Professorial Lecturer, RCHS
LIPOFF, DENNIS A., B.S., M.B.A.,
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 Psychiatry)
McNAMARA, BARRY T., B.S., J.D.,
 Honorary Faculty, RCHS and RMC
MARTIN, DAN M., Ph.D., Honorary
 Faculty, RCHS and RMC
MONCRIEFF, ELLSWORTH H., B.A.,
 Complementary Faculty, RCHS and RMC
PAVLOU, MARCIA M., B.A., M.A.,
 Ph.D., Assistant Professor, RCHS and
 RMC and Assistant Scientist, PSLH
PISANI, VINCENT D., B.S., M.A., Ph.D.,
 Assistant Professor, RCHS and RMC and
 Assistant Scientist, PSLH (also
 Psychiatry)
PSARRAS, GEORGETTE M., B.A.,
 M.A., Ph.D., Assistant Professor, RCHS
 and RMC and Assistant Scientist, PSLH
 (also Psychiatry)
SCHNEIDER, ANNE A., R.N., B.A.,
 M.A., Ph.D., Instructor, RCHS and
 RMC
SCHOENENBERGER, JOSEPH C., B.S.,
 M.S., Ph.D., Assistant Professor, RCHS
 and RMC and Assistant Scientist, PSLH
 (also Preventive Medicine)
ULRICH, LARRY K., B.A., M.Div.,
 S.T.M., D.Min., Assistant Professor,
 RCHS and RMC
WATSON, LAURA H., M.A., Instructor,
 RCHS and RMC and Adjunct Scientist,
 PSLH (also Psychiatry)

The Department of Psychology and Social Sciences offers a full-time internship, approved by the American Psychological Association, for third and fourth year level students. Interns elect one of the five basic experience training options of the program: General Clinical Psychology; Community Psychology; Clinical Child Psychology; Clinical Neuropsychology; or Clinical Research Psychology.

All options share a common emphasis on a broad understanding of the life adaptations of children and adults. The program

provides both didactic work and clinical experience aimed at developing professional competence in the diagnosis, treatment, and research of pathological life adaptations, and toward fostering, as well, a professional concern for preventive psychological practices.

Children, adolescents, and adults of all ages and all varieties of transient and major psychological disturbance, functional and organic, are seen for diagnosis and treatment. The Department of Psychiatry maintains a 61-bed inpatient unit for children and

adults, a day hospital offering both child and adult programs, outpatient clinics for children and adults, and community-based mental health services.

Psychologists also have significant clinical and research interests in the Departments of Pediatrics, Neurology, Medicine, Preventive Medicine, and Obstetrics and Gynecology. All these elements of the hospital are also resources for the training programs of this Department. Few institutions can provide, under one roof, so varied a population for psychological study and training purposes.

The training philosophy of the Department holds that an intern comes here as a mature, if yet emerging, professional, capable of self-direction in planning and to some extent implementing his training, if appropriate information and expectations are communicated. Since interns are considered full-fledged Department members, their appointments as interns must be submitted for review to the Department's Committee on Academic and Professional Affairs; they attend and vote at Departmental meetings, and are represented on the Departmental Council, an advisory body to the Chairman, and on all permanent and ad hoc Departmental committees; they also hold academic rank as Assistant in Rush Medical College. No duties are relegated to trainees as beneath the interest of the staff. Every member of the staff is also a member of the training staff. While debate for its own sake is discouraged, diversity of points of view is expected and supported.

During the year every trainee receives thoroughly detailed and

personal supervision of his clinical activities, consultation, and research. As trainees develop increased competence through experience, they become able to function with increased independence. The continuing provision of extensive supervisory time during the year is based on the premise that developing competence does not, and should not, exhaust the capacity of trainees to learn new material or to develop new insights about old material in the later part of the training year.

Individual supervision in psychodiagnostics is provided through rotating assignments, by case, to members of the staff. Initially, the trainee and supervisor work quite closely as a diagnostic team, from planning of examination tactics through ultimate consultation. Soon the trainee is given all the independence of action he is ready to assume.

Trainees may expect supervision from an experienced therapist in psychology, psychiatry, or psychiatric social work. Clinical seminars available on an optional basis provide a context for broader learnings in psychotherapy, often in conjunction with trainees and staff from other disciplines. Staff sociologists and members of other departments are also available for consultation. Each intern's progress is evaluated formally mid-year, and again at the end of the internship. This evaluation is a composite assessment of the strengths and weaknesses of the intern as determined by his supervisors and the training director. A formal feedback session with the training director allows for clarification of staff views.

*General Clinical
Psychology Internship*

This program emphasizes the particularly important contribution the clinical psychologist can make in the general hospital, including the psychiatric setting. In some measure, this is the broadest option available, providing solid clinical

training and diverse clinical experience for the intern who is not already committed to a specialty field.

Diagnostic training focuses on understanding the behavioral and emotional disturbances frequently

*General Clinical
Psychology
Internship . . .*

associated with physical illnesses, elucidating character problems, analyzing thought processes and pathologies, and studying intellectual deficits associated with neurologic disorders. The intern will combine his maturing skills with those of psychiatrists, neurologists, pediatricians, general medical practitioners, and other staff engaged in analysis and treatment. The intern can expect to work with patients presenting a spectrum of mild to severe psychological problems, covering the range from organic psychopathologies to the more purely functional disorders.

The intern's assignments will include an acute, intensive in-patient unit, outpatient clinics, day hospital, and consultation services. The intern may also have an assignment to the community

health clinic. These assignments introduce the trainee to the professional problems and possibilities specific to certain settings: learning what kinds of information and assistance are sought from the psychologist in these settings, and developing flexible clinical and communicative skills to meet the demands of a complex professional life.

Therapy experience and training is typically with patients individually and in groups in the outpatient setting. It is intensively supervised by therapists of differing backgrounds and theoretical points of view. Additional training in the general program is provided through staffs, ward meetings, and seminars as well as by psychology staff conferences, which form the stable part of the internship year.

*Clinical Child
Psychology Internship*

The clinical child psychology intern is encouraged to define his professional role within the broad spectrum of child behavior. The program emphasizes familiarization and appropriate techniques for dealing with the manifold problems of children as they occur in the psychiatric, pediatric, and community setting. The intern is guided toward recognition of and management of children's emotional problems before they become disabling, concentrating on prevention and early amelioration. The intern trains in the Department's pediatric psychology service, the child psychiatry clinic and inpatient service, and the Children's Therapeutic Day School. Concerning himself with the child who is a medical patient, the pediatric psychologist develops skills in recognizing nascent emotional disorders and those emotional and familial problems which complicate the management of medical illness. The trainee also sees children whose particular disabilities require psychological as well as medical management, such as children with birth defects and

language disorders. The pediatric psychologist is concerned, too, with psychological aspects of pediatric hospitalization and surgical procedures. The Children's Therapeutic Day School is for children of primary school age who are unable to maintain an adjustment that permits them to remain in or benefit from their community schools. The program provides day care in a therapeutic setting that includes classroom work, psychotherapy, and behavior modification. The trainee participates in all stages of program and patient evaluation, treatment, and follow-up care.

The trainee's diagnostic training will center on his work with children, but he will work with both parents and children in psychotherapy and brief counseling. The trainee may be located in an inner-city neighborhood adjacent to the hospital. Here he will have opportunity, building on his earlier experience, to develop consultative skills in contacts with such community agents as visiting nurses, school nurses, and teachers. Visits to well-baby clinics,



*Clinical Child
Psychology
Internship. . .*

local schools, and other child care agencies, along with staffs and seminars which tie into the

trainee's clinical experience, round out the training.

*Community Psychology
Internship*

The development of this program is stimulated by the hospital's own involvement in community-based health and mental health services, as well as by the generally increasing professional interest in community-centered mental health action.

Mile Square Health Center nearby has permitted the shaping of a community psychology traineeship that is well founded on the hospital's established medical and psychological programs, and, at the same time, widely open to experimental approaches to the mental health problems of a much neglected community.

While the major field of action in this internship differs from that of the other training options, similar goals obtain. While some aspects of community health programs call for innovative techniques, this internship program is built on the premise that clinical work by the psychologist in the community should rest upon foundation skills in clinical psychology. The trainee will have ample opportunity to

attempt experimental approaches to the many problems presented in the community, but with an educated awareness of the need to amplify and expand upon his clinical psychological skills. Thus, this program also prepares the psychologist to be able to perform the more traditional psychological service functions when the need devolves upon him in his community work.

The intern who elects this program is encouraged to define himself as a person who is involved at all levels of intervention in the community as a clinical psychologist and a behavioral scientist. Two goals obtain for the community intern: (1) to gain an intimate knowledge of the community, its agencies, and its institutions, and (2) to apply the body of knowledge which is uniquely psychology's to problems which are generic to all communities and specifically to the Mile Square community.

*Clinical
Neuropsychology
Internship*

This program is intended for students who have a defined interest in clinical or clinical research careers in neuropsychology. The program emphasizes the psychological study of the cognitive and affective sequelae of disorders of the central nervous system and the clinical psychologist's contribution to the diagnosis and management of patients suffering from acute and chronic neurological disorders and organic psychopathologies. Perceptual, cognitive, and affective disabilities are described; the relation of these disabilities to the organic pathology is explored; and the implications of such disabilities for life adaptation are defined. There is close and continuing collaboration and consultation with members of the

neurology, pediatrics, neurosurgery, and psychiatry services. The intern in the clinical neuropsychology program will gain experience with neurological disorders having developmental consequences, such as in the pediatric birth defects setting, as well as with the disorders reflective of acute injury and disease, and of the changes of aging. Ample experience with patients who represent normative baseline neurological functioning is also an important part of this program. Although clinical diagnostic skills receive major emphasis in this program, counseling and psychotherapy techniques are also recommended as desirable elective options.

Clinical Psychology Research Internship

The aim of this elective program is to provide the sound clinical background needed for the intern whose basic interest lies in the research exploration of personality, psychopathology, or other clinical psychological issues. The program stresses exposure to clinical problems, clinical techniques, and the clinical setting. The internship is not limited to experience with the traditionally defined mental

disorders, but includes experiences with psychological aspects of various illnesses and situations, with the widely varied populations found within the Medical Center, or with the various research teams among the staff. This internship is not designed to support dissertation research; nonetheless, the personal research interests of the trainee are honored.

New Programs In Health Care Psychology

The autonomous relationship of a department like this to an institution concerned with health care of large populations in an innovatively responsible way widens the horizon of professional psychological involvement. The Department has recently begun to focus on the role of professional clinical psychologists in the delivery of health care. Clinical psychologists are being called upon to contribute directly to the management and treatment of many medical conditions which require behavioral, psychological, and social adaptation by those afflicted. For the most part, new program development has occurred outside the context of psychopathology, and in some cases outside the more general field of "mental health." In many of these programs, the Department hopes to anticipate the role of psychologists in the future under programs of national health insurance. Three pilot programs currently permit of participatory involvement by interns.

First, with the Department of Neurology, a comprehensive patient care program is underway for persons with multiple sclerosis. In addition to complete neurological care, all patients are seen by a staff psychologist and evaluated for inclusion into one or more of the M.S. Center programs staffed and run by psychologists, to assist them with the multiple behavioral, psychological, and social adaptations required of them by this disabling, unpredictable

disease. Second, a staff psychologist has recently been appointed to explore ways of assisting persons with medically related conditions which are not amenable to cure, or even satisfactory management, through the application of known medical regimens alone. Essential hypertension, chronic arthritis, chronic and acute pain, diabetes, and persistent GI distress often leave the afflicted individual with painful and discomforting symptoms which interfere with previously satisfying psychological and social adaptation. Through application of a variety of new biofeedback and behavior modification techniques, psychologists might help to eliminate presenting symptoms or facilitate more comfortable symptomatic adjustments. Third, a cognitive function laboratory has been established for the clinical diagnosis and research study of conditions associated with central nervous system pathology. Drawing on the Department's considerable depth in the area of clinical neuropsychology, and upon close collaboration with staff neurologists, this service has begun programs of clinical consultation and research with geriatric populations. Interns are expected to participate in the development and implementation of new Department programs.

Research in the Training Year

Research interests of trainees are highly valued; provision can be made for research work for interns not electing the strong research option of the clinical psychological research program. The Department has its own research laboratories with three-channel tachistoscope, eye-movement

camera, flicker-fusion apparatus, psychomotor apparatus, high-speed computer facilities, and consultative assistance from biostatisticians, biomedical engineers, and other medical and scientific staff.

Training Staffs and Seminars

Many elective courses in the Rush Medical College curriculum, such as psychopharmacology, endocrine systems, or neuroanatomy, are open for auditing by interns. The Department staff also offers specially designed clinical seminars which can be implemented at the request of the interns and the consent of staff, including seminars on: Psychotherapy, Diagnostic Interviewing, Clinical Neuropsychology, Clinical Behavior Genetics, Group Dynamics, Social Deviance, Child Psychotherapy, Human Sexual Dysfunction, Family Treatment, Professional Psychology, Clinical Physiological Psychology, and Clinical Research.

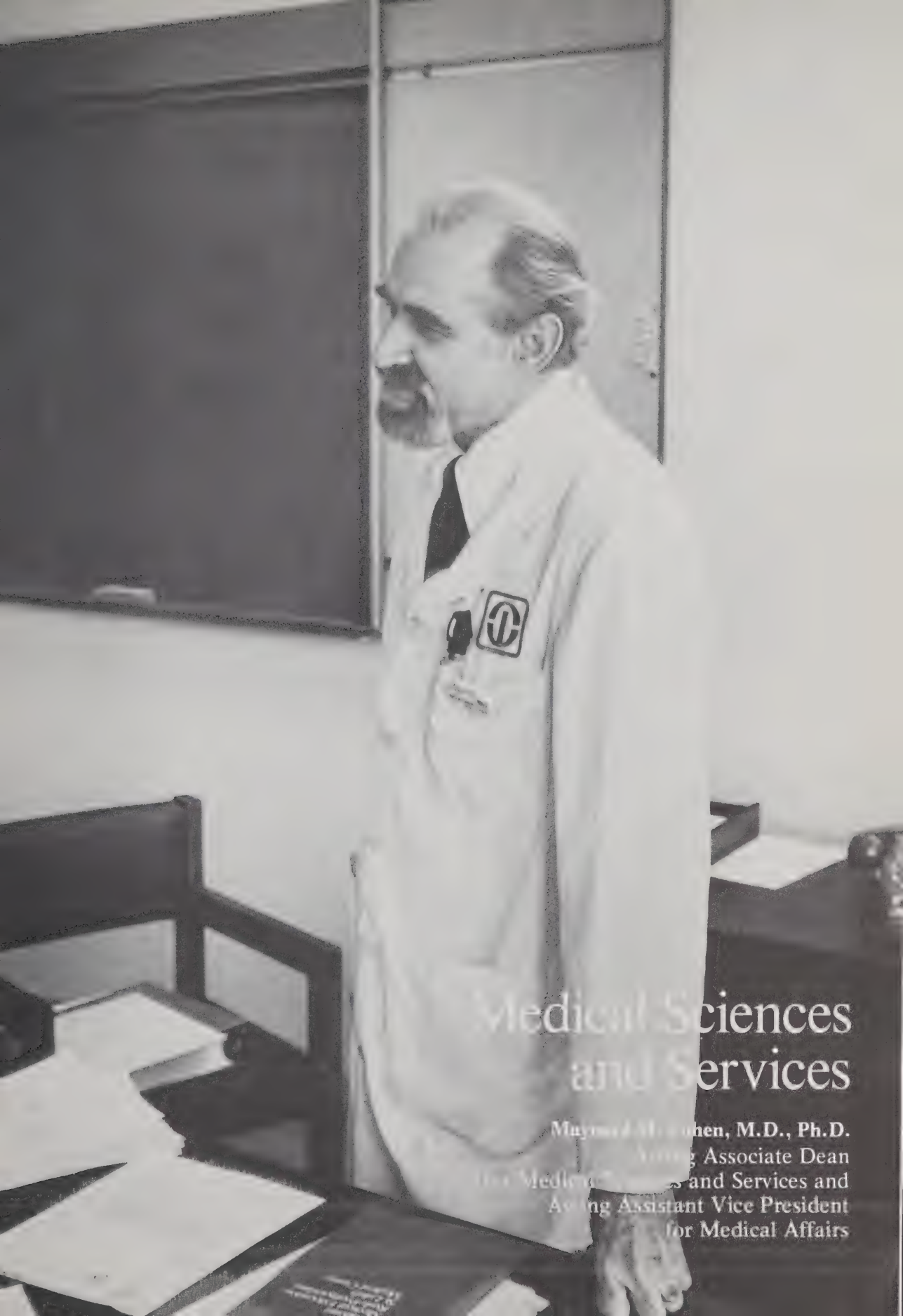
Such seminars make use of the facilities of the Audio-Visual Center of the Medical Center, which provides one-way mirror rooms, tape recordings, and video-tape television capabilities. This department has acquired cassette and reel-type tape recorders, a bug-in-the-ear electronic device, and two one-way mirror rooms for the exclusive use of Department staff and trainees. An extensive tape and

book library provides an additional resource.

The Clinical Psychology Internship Program is approved by the American Psychological Association for Type G training. Five internship appointments are available for the year; stipends are provided through Medical Center funds and an NIMH training grant. One internship position is available for an exceptional student from a non-APA-approved graduate program. Interns are appointed at the rank of Assistant on the Rush Medical College faculty.

Applications are considered independently. Appointment procedures follow the guidelines of the Association of Psychology Internship Centers. Appointment awards are announced on the second Monday of February, and applicants have five days to accept or decline the appointment offer. Early application is always encouraged, although no deadline is maintained.





Medical Sciences and Services

Maynard M. Cohen, M.D., Ph.D.
Young Associate Dean
for Medical Sciences and Services and
Young Assistant Vice President
for Medical Affairs

Department of Dermatology

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BIELINSKI, STEFAN, B.S., M.D.,
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BLANKENSHIP, MARSHALL, M.D.,
 Assistant Professor, RMC and Assistant Attending, PSLH
EARLES, RENE, B.S., M.D., Instructor, RMC and Assistant Attending, PSLH
ERTLE, JAMES, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
FINNERUD, CLARK W., B.S., M.D., Emeritus, RMC and Emeritus, PSLH
HAEBERLIN, JOHN B., Jr., M.D., Emeritus, RMC and Emeritus, PSLH
HETREED, FRANCIS W., M.D., Emeritus, RMC and Emeritus, PSLH
KAPLAN, SIDNEY, M.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

The Department of Dermatology is devoted to patient care, medical student teaching, resident training, and clinical and laboratory research. Outpatient clinics and an inpatient service, as well as consultations for hospitalized patients, are provided. All private patients in the offices of the full-time staff are also seen by residents and medical students. The Department conducts regular formal and informal teaching sessions for house staff and students as well as clinical sessions for the entire full- and part-time departmental staff. Clinical instruction for students is provided by a three-month course in the second medical school year. This course relates the physiology and biochemistry of the skin to clinical disease processes and introduces the students to clinical dermatology, with many case demonstrations. In addition, the Department accepts two third- or fourth-year medical students per month for an elective period. Medical students who elect to rotate through the Dermatology

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PEARSON, ROGER W., M.D., Professor, RMC and Senior Attending, PSLH
ROSTENBERG, JR., ADOLPH, M.D., Emeritus, RMC and Emeritus, PSLH
SMITH, EDWIN, M.D., Emeritus, RMC and Emeritus, PSLH
SPINKA, HAROLD M., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH
STROHL, LEE H., M.D., Instructor, RMC and Assistant Attending, PSLH
SZYMANSKI, FREDERICK J., M.D., Professor, RMC and Senior Attending, PSLH
WIDRA, ABE, B.A., M.S., Ph.D., Visiting Associate Professor, RMC and Consulting, PSLH (also Microbiology)

Department also see consultations and outpatients, and assume responsibilities for the inpatient service—all under the supervision and instruction of full-time staff members.

Three main areas of laboratory research are currently under active investigation: (1) the effects of ionizing radiation and drugs on proliferating hair matrix cells; (2) ultrastructural analysis of skin reactions to injury, especially from ionizing radiation and chemotherapeutic agents; and (3) metabolism studies of steroids and sebaceous gland cells. Active areas of clinical research include effects of antibiotics on immunologic responsiveness, certain types of skin reactions to staphylococcal infections, and ultrastructural pathology of blistering disease.

The Department of Dermatology is approved for the full three-year training program for residents in Dermatology and generally accepts one resident each year. Currently, three residents are in training.

Department of Internal Medicine

SCHWARTZ, THEODORE B., M.D., Chairman
KARK, ROBERT M., M.D., Associate Chairman
TROBAUGH, JR., FRANK E., M.D., Associate Chairman

GREGORY, STEPHANIE A., M.D., Assistant Chairman
ADLER, SOLOMON S., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

Key: RMC—*Rush Medical College*; RCHS—*Rush College of Health Sciences*; RCN—*Rush College of Nursing*; PSLH—*Presbyterian-St. Luke's Hospital*

Internal Medicine . . .

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- BARTON, EVAN M., B.A., M.D., Professor, RMC and Senior Attending, PSLH
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- BECKER, FRANK O., B.M., M.D., Associate Professor, RMC and Associate Attending, PSLH
- BLAAUW, BERNARD B., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- BLACK, ARNOLD, M.D., Professor, RMC and Senior Attending, PSLH
- BOGDONOFF, MAURICE L., M.D., Professor, RMC and Senior Attending, PSLH (also Diagnostic Radiology)
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- BONBREST, H. CONSTANCE, A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Preventive Medicine)
- BREGMAN, ANDREW, M.D., Instructor, RMC and Adjunct Attending, PSLH
- BREUHAUS, HERBERT C., B.S., M.D., Emeritus, RMC and Emeritus, PSLH
- BRINEY, ROBERT R., M.D., Visiting Assistant Professor, RMC and Consultant, PSLH
- BROWN, R. GORDON, A.B., M.D., Associate Professor, RMC and Senior Attending, PSLH
- BROWN, WILLIAM C., M.D., Assistant Professor, RMC and Senior Attending, PSLH
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- DEVETSKI, ROBERT L., M.D., Visiting Assistant Professor, RMC and Assistant Attending, PSLH
- DOW, JAMES W., M.D., Professor, RMC and Senior Attending, PSLH (also Biomedical Engineering)
- DOWLING, HARRY F., M.D., Emeritus, RMC and Emeritus, PSLH
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- ECONOMOU, PETER G., B.S., M.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH



Internal Medicine...

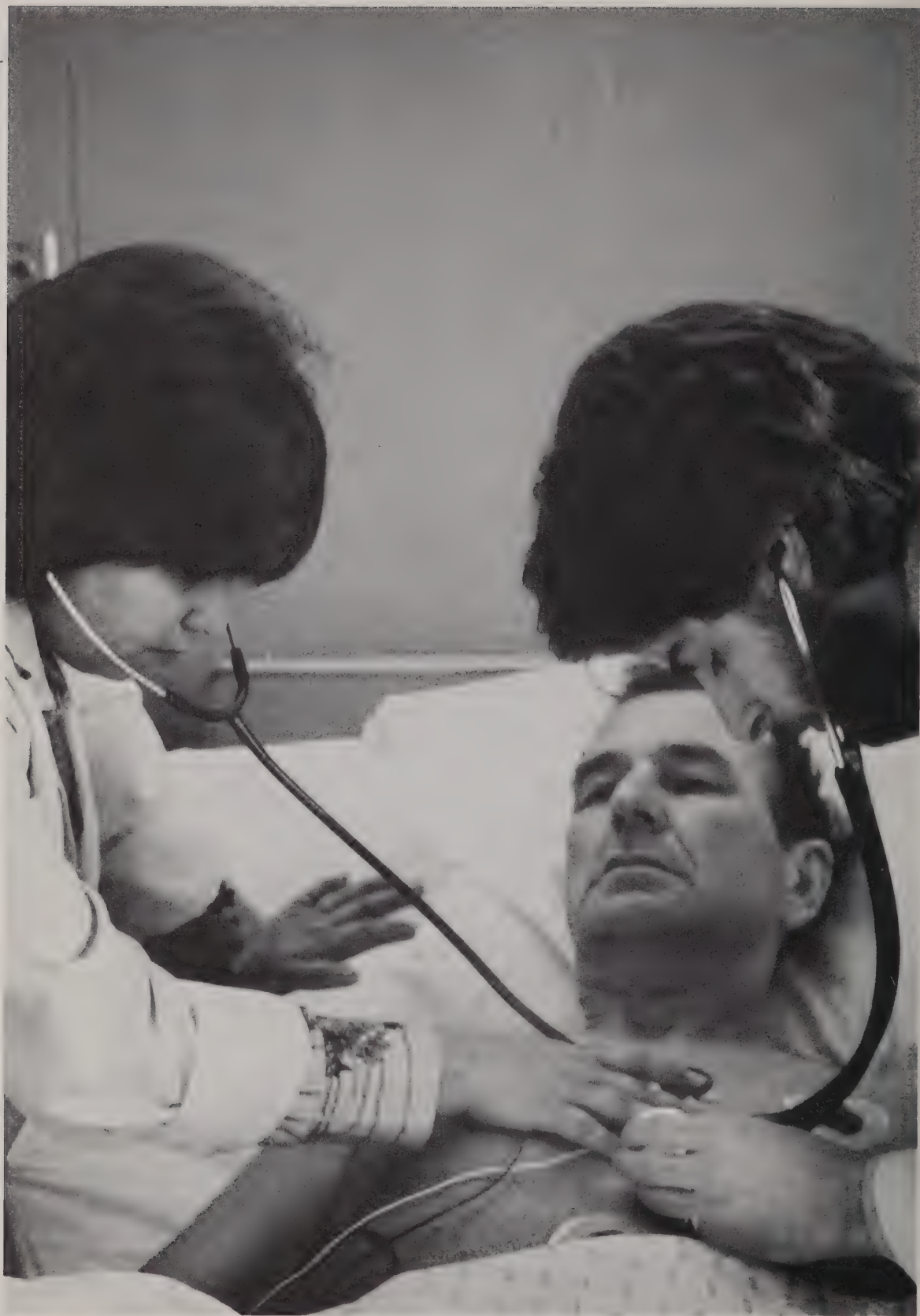
- EVANS, THELMA J., B.S., M.D.,
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- EYBEL, CARL E., B.S., M.D., Assistant
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PSLH (also Neurological Sciences)
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Attending, PSLH
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sultant, PSLH
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Professor, RMC and Associate Attending,
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- KELLY, SR., FRANK B., M.D., Emeritus,
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Medicine)

Internal Medicine...

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- KORNEL, LUDWING, Ph.D., M.D., Professor, RMC and Senior Attending, PSLH
- LAING, GRANT H., M.D., Emeritus, RMC and Emeritus, PSLH
- LASHOF, JOYCE C., M.D., Professor, RMC and Senior Attending, PSLH
- LEPPER, MARK H., B.A., M.D., Professor, RMC and Senior Attending, PSLH
- LEVIN, STUART, B.M., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Microbiology and Preventive Medicine)
- LEVINE, CHARLOTTE C., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH (also Preventive Medicine)
- LEVINE, MILTON D., B.A., Sc.D., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Preventive Medicine)
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- McCREARY, PATRICIA A., M.D., Associate Professor, RMC and Associate Attending, PSLH
- McFATE, PATRICIA, Ph.D., Visiting Associate Professor, RMC and Consultant, PSLH
- McKENNA, RAJALAXMI, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- McLEOD, BRUCE, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- MEDENIS, VIDVUDS, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- MEREDITH, PAUL A., A.B., M.D., Associate Professor, RMC and Assistant Attending, PSLH
- MERKEL, FREDERICK K., B.S., M.D., Associate Professor, RMC and Associate Attending, PSLH (also General Surgery and Immunology)
- MERWICK, PATRICIA A., B.S., M.D., Assistant Professor, RMC and Adjunct Attending, PSLH
- MESSER, JOSEPH V., A.B., M.D., Professor, RMC and Senior Attending, PSLH
- MEYER, JOHN H., M.D., Associate, RMC and Assistant Attending, PSLH
- MOON, BYONG H., B.S., M.S., Ph.D., Assistant Professor, RMC and Assistant Scientist, PSLH (also Pharmacology)
- MORRIS, ARTHUR M., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH
- MUEHRKE, ROBERT C., B.S., M.D., Associate Professor, RMC and Consultant, PSLH
- MUENSTER, JOSEPH J., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Pediatrics)
- NATHAN, R. DEVA, M.D., Instructor, RMC and Assistant Attending, PSLH
- NELSON, BERTRAM G., B.S., M.D., Professor, RMC and Senior Attending, PSLH
- NOBLE, BARBARA W., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- NORTHROP, GRETAJO, B.S., M.S., Ph.D., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Obstetrics-Gynecology)
- O'BRIEN, DONALD E., A.B., M.D., Associate Professor, RMC and Associate Attending, PSLH
- OYAMA, JOSEPH H., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- PARSONS, ROBERT L., M.D., Visiting Assistant Professor, RMC and Adjunct Attending, PSLH
- PAUL, OGLESBY, M.D., Visiting Professor, RMC and Consultant, PSLH
- PAUL, TARAK N., B.S., M.D., Assistant Professor, RMC and Adjunct Attending, PSLH
- PAYNE, JOHN A., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- PERLIA, CHARLES P., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- PHELAN, WILLIAM H., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- PIERCE, MILA I., M.D., Distinguished Professor, RMC and Consultant, PSLH (also Pediatrics)
- POMERANTZ, RHODA S., A.B., M.D., Assistant Professor, RMC and Associate Attending, PSLH (also Preventive Medicine)
- PONSIGLIONE, JOHN D., B.S., M.D., Instructor, RMC and Assistant Attending, PSLH

Internal Medicine...

- POST, JOHN, M.D., Visiting Assistant Professor, RMC and Emeritus, PSLH
- POWERS, RICHARD J., B.S., M.D., Assistant Professor, RMC and Associate Attending, PSLH (also Pharmacology)
- PRANCAN, ARTHUR V., B.S., Ph.D., Assistant Professor, RMC and Assistant Scientist, PSLH (also Pharmacology)
- RAMSEY, MICHAEL M., M.D., Instructor, RMC and Assistant Attending, PSLH
- REID, ROBERT H., A.B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- RENNIE, I. DRUMMOND, M.B., M.D., Associate Professor, RMC and Associate Attending, PSLH
- REYNOLDS, ROBERT E., B.A., M.D., M.P.H., D.P.H., Associate Professor, RMC and Associate Attending, PSLH
- RIFF, DONALD P., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- ROBERTS, JIMMY L., A.B., M.D., Instructor, RMC and Adjunct Attending, PSLH
- ROOT, THOMAS E., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- ROSENBERG, MARVIN S., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- ROSENBLATE, HOWARD J., B.A., M.D., Assistant Professor, RMC and Consultant, PSLH
- ROSCELLEY, RIGBY C., B.S., M.D., Professor, RMC and Senior Attending, PSLH
- ROTENBERG, MORRY L., B.Sc., M.D., Instructor, RMC and Adjunct Attending, PSLH
- RYAN, WILL G., M.D., Associate Professor, RMC and Senior Attending, PSLH
- SANTUCCI, BARBARA, B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Pediatrics)
- SASSETTI, RICHARD J., M.D., Assistant Professor, RMC and Senior Attending, PSLH
- SCHEINER, DAVID L., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Preventive Medicine)
- SCHICK, ARMIN F., M.D., Visiting Assistant Professor, RMC and Consultant, PSLH
- SCHOENBERGER, JAMES A., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Preventive Medicine)
- SCHUESSLER, ROGER R., M.D., Assistant Professor, RMC and Senior Attending, PSLH
- SCHWARTZ, THEODORE B., B.S., M.D., Professor, RMC and Senior Attending, PSLH
- SCUPHAM, WILLIAM K., A.B., M.D., Assistant Professor, RMC and Consultant, PSLH
- SHALLAT, CHARLES H., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- SHARON, ZEEV, M.D., Instructor, RMC and Adjunct Attending, PSLH
- SHOWEL, JOHN L., B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- SILINS, VITOLDS R., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- SLAYTON, ROBERT E., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- SNAPP, MARSHALL, B.A., M.D., Associate, RMC and Assistant Attending, PSLH
- SOKALSKI, STEVEN J., B.S., D.O., Visiting Assistant Professor, RMC and Consultant, PSLH
- STAMLER, JEREMIAH, M.D., Visiting Professor, RMC and Consultant, PSLH
- STAVINGA, RONALD F., M.D., Instructor, RMC and Adjunct Attending, PSLH
- STEINBERG, HAROLD H., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Preventive Medicine)
- STUPPY, GEORGE W., B.S., M.S., Ph.D., M.D., Emeritus, RMC and Senior Attending, PSLH
- SUSMANO, ARMANDO, M.D., Assistant Professor, RMC and Associate Attending, PSLH
- TARUN, DONALD W., B.A., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- TARZYNSKI, MARIAN S., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- TAUSK, KASRIEL, M.D., Assistant Professor, RMC and Senior Attending, PSLH
- TAYLOR, SAMUEL G., A.B., M.D., Professor, RMC and Senior Attending, PSLH
- THOMSON, ANDREW, B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
- THOMSON, CAMERON J., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
- TOLCHIN, NATHAN, B.A., D.O., Instructor, RMC and Adjunct Attending, PSLH
- TRENHOLME, GORDON M., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Pharmacology)
- TROBAUGH, JR., FRANK E., B.A., M.D., Professor, RMC and Senior Attending, PSLH
- TUCKER, W. RANDOLPH, A.B., M.D., Associate Professor, RMC and Associate Attending, PSLH
- TWISS, ALSTON C., B.A., M.D., Associate, RMC and Assistant Attending, PSLH



Internal Medicine . . .

TYSZKA, THOMAS S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
WAKEFIELD, HOWARD, S.B., M.D., Emeritus, RMC and Emeritus, PSLH
WAXMAN, JORDAN, M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Neurological Sciences)
WINTER, PAUL L., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH
WOLFE, CHARLES K., A.B., M.D., Associate Professor, RMC and Senior Attending, PSLH

WOLTER, JANET, A.B., M.D., Assistant Professor, RMC and Senior Attending, PSLH
WONG, PAUL W., M.Sc., M.D., Professor, RMC and Senior Attending, PSLH (also Pediatrics)
WOOD, WILLARD L., M.S., M.D., Emeritus, RMC and Senior Attending, PSLH
ZEITZ, HOWARD J., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Immunology)
ZITNIK, RALPH S., M.D., Associate Professor, RMC and Associate Attending, PSLH

The Department of Internal Medicine includes the Sections of Cardiology, Digestive Diseases, Endocrinology and Metabolism, Geriatrics, Clinical Hematology, Laboratory Hematology, Infectious Diseases, Nephrology, Oncology, Pulmonary Medicine, and Rheumatology.

The Department provides an integrated program of postdoctoral residency training in Internal Medicine which consists of a one-year internship (R_1) and two subsequent years of residency (R_2 and R_3). An additional year of advanced training with teaching responsibility and an adjunct Medical Staff appointment is offered in a Chief Residency.

The internship year is structured to provide intensive patient contact utilizing some 300 medical beds divided into six general medical units, a Medical Intensive Care Unit, and a Surgical Intensive Care Unit. This year is divided into four two-month rotations on general medical units, which range from 30 to 47 patients. Each general medical unit is staffed by one or two residents, three medical interns, and several Rush Medical College students. One month each is devoted to medical and surgical intensive care experience. A final two-month period is allotted to elective study, which may be taken in any medical or surgical subspecialty, or in Pediatrics, Psychiatry, or Neurology.

In the second year, a resident spends six months on a general

medical unit, two months of Emergency Room-Triage experience, and the remainder on elective services.

The third-year resident spends one to three two-month rotations on a general medical unit and the rest of the time in the subspecialty areas of his or her choice. The Department of Medicine also provides supervised outpatient medical experience in the Presbyterian-St. Luke's Hospital Health Center Clinics, which average approximately 28,000 patient visits per year. Throughout the training period, each medical house officer is assigned one half-day a week to a medical clinic. This continuing assignment provides the physician with the opportunity to provide long-term care.

With the expansion of the Rush-Presbyterian-St. Luke's Medical Center to include affiliated network hospitals, the Department has expanded its training potential to include medical unit experience in a community hospital setting. Moreover, the refurbished Sheridan Road Pavilion of Presbyterian-St. Luke's Hospital will provide 80 general medical beds in a community hospital, which is an integral part of Presbyterian-St. Luke's Hospital. The house staff education program there is under the direction of a newly appointed Assistant Chairman of Medicine and is integrated with the house staff training program at Presbyterian-St. Luke's Hospital. These ac-

Internal Medicine...

tivities have added depth in primary patient care experience.

The Department of Medicine schedules regular teaching sessions which include Medical Grand Rounds, a medical subspecialty lecture series, Attending and Shock Rounds, and Morbidity and Mortality Conferences. It sponsors a Biology in Medicine Seminar designed to promote in-depth study of selected clinical or research areas in medicine. The Department has recently added a bimonthly Journal

Club to these sessions.

Individualization of programs is encouraged and other postgraduate programs are available, including elective rotations through ENT, office gynecology, ophthalmology, and psychiatry for internists. Further intensive care experiences beyond the residency are available in the clinical and research fellowships offered by the various sections.

Section of Cardiology

MESSER, JOSEPH V., M.D., Director
BATTLE, WILLIAM E., M.D.
CHHABLANI, RAMESH, M.D.
CLARK, JAMES G., M.D.
COLANDREA, MICHAEL A., M.D.
COLEMAN, HENRY N., M.D.
EYBEL, CARL E., M.D.
HAUSER, ROBERT G., M.D.
HEGYVARY, CSABA, M.D.
LIEBSON, PHILIP R., M.D.
MUENSTER, JOSEPH J., M.D.

RIFF, DONALD P., M.D.
ROSENBERG, MARVIN S., M.D.
SUSMANO, ARMANDO, M.D.
TYSZKA, THOMAS S., M.D.
ZITNIK, RALPH S., M.D.
DOW, JAMES W., M.D., Consultant
GRAETTINGER, JOHN S., M.D.,
Consultant
SCHOENBERGER, JAMES A., M.D.,
Consultant
SESSIONS, ROBERT W., Consultant

The Section of Cardiology provides consultation and diagnostic services for patient care, teaches medical students and postgraduates, and conducts research studies. Section personnel include the full-time Section staff, practicing attending physicians, fellows, residents in medicine, fourth-year medical students who rotate on an elective basis, and qualified cardiovascular nurses and technicians.

The Section includes the catheterization, cardiovascular monitoring, graphics measurement, and electrocardiographic units, in addition to laboratories for blood and air analyses. The Section Director also administers the Medical Intensive Care/Coronary Care Unit for the Department of Medicine. An animal laboratory is available for cardiovascular studies.

Medical residents are assigned patients whom they evaluate with the attending physicians. They interpret electrocardiograms, angiographic and graphic data with guidance from the attending staff. Emphasis is placed on ob-

jective evaluation of cardiac physiology.

The cardiology fellows supervise hemodynamic monitoring and cardiac care in the Medical Intensive Care Unit and perform diagnostic cardiac catheterization in the Cardiac Catheterization Laboratory. They also undertake clinical and laboratory investigative studies.

The Section conducts research on the natural history of cardiac disease, quantification of ventricular function by invasive and noninvasive techniques, application of electrophysiologic principles to the study of man, and diagnosis and modification of hemodynamic abnormalities.

The Section conducts formal teaching exercises in cardiology, consultation rounds, cardiac clinic, and daily cardiac reports. Cardiology fellowships are available upon completion of two or more years of medical residency.

Section of Digestive Diseases

Liver Unit

PAYNE, JOHN A., M.D., Acting Director

The Section of Digestive Diseases includes three units: (1) the Liver

PAYNE, JOHN A., M.D., Head
JONES, PHILIP N., M.D.
CAPPS, RICHARD B., M.D., Consultant

The study of liver disease as pursued in the Liver Unit involves consultation, care, and investigation of clinical problems as well as laboratory investigation of the liver and its diseases.

Medical residents electing experience in the unit see patients in consultation and, after appropriate training, perform liver biopsies when indicated. They may also take an active part in clinical or basic research. Formal teaching activities include hepatology rounds, liver biopsy study sessions, a liver clinic held each week in the Health Center, and consultative rounds on patients with liver disease (mainly acute hepatitis) at the Municipal Contagious Disease Hospital. There is a close working relationship with the alcoholism treatment unit of the Department

Gastrointestinal Unit

FRANKLIN, JAMES L., M.D., Acting Head
PONSIGLIONE, JOHN, M.D.

The Gastrointestinal Unit provides consultation for patients with diseases of the gastrointestinal tract, specialized diagnostic laboratory and clinical procedures, and formal and informal teaching of house staff and medical students in gastrointestinal disease.

Medical residents see all patients requiring consultation and participate in endoscopic and other diagnostic procedures. Reviews of

Nutrition Unit

KARK, ROBERT M., Head
MATTENHEIMER, HERMAN, M.D.
HOWRITT, MAX K., Ph.D., Consultant
JOHNSON, ROBERT E., M.D., D.Phil., Consultant

The Nutrition Unit is concerned with the education of medical students, house staff, and staff.

Unit; (2) the Gastrointestinal Unit; and (3) the Nutrition Unit.

of Psychiatry.

Research is primarily oriented to the study of the etiology and pathogenesis of human viral hepatitis. In addition to the study of patients, this involves work with marmosets (small South American primates) and a variety of *in vitro* microbiological systems. These studies are carried out in collaboration with the Department of Microbiology. Other areas of interest include the hepatic effects of drug use, drug and alcohol addiction, and the natural history, cause, and appropriate treatment of chronic active hepatitis.

Fellowships are available in the unit for individuals who have completed two years of medical residency. Research fellowships (ideally two years) are also available and involve collaborative work between the Section and one of the basic science departments.

pertinent x-rays give experience and interpretation of films concerned with the gastrointestinal tract.

Fellowships are available. Fellows share substantially in the consultation and teaching program with participation in clinical and basic research. Facilities are available for a wide range of research activities; projects of interest to individual fellows may be arranged with personnel in the unit and in other departments.

Postgraduate training is available through fellowships; special arrangements can be made for elective studies. The unit has laboratories for study of nutritional and related disorders, including nutritional chemistry, cell biology, and hair-analysis laboratories.

*Section of
Endocrinology
and Metabolism*

Each day there is teaching at the bedside by the staff and consultations on problem cases. Members of the resident staff are

SCHWARTZ, THEODORE B., M.D.,
Director
RYAN, WILL G., M.D., Associate Director

The Section of Endocrinology and Metabolism takes a broad yet intensive approach to clinical, investigative, and laboratory aspects of the discipline. In addition to providing consultations for patients, the Section maintains a clinical endocrinology laboratory to perform serum thyroxine, protein-bound iodine, insulin, growth hormone, parathyroid hormone, and a variety of serum lipid determinations.

There is active research on diabetes, somatomedin, metabolic bone disease, and disorders of growth, including investigations of patients housed in the Rice Metabolic Research Unit. The

assigned to the unit, and fellowships are available at the end of the second year of residency training.

GARLAND, JOHN T., M.D.
KORNEL, LUDWIG, M.D., Ph.D.
NORTHROP, GRETAJO, M.D., Ph.D.

Steroid Unit of the Section performs determinations of serum and urinary steroids of various types and conducts a research program on steroid metabolism in essential hypertension.

The teaching program is active at all levels. In addition to regularly scheduled endocrinology conferences, the Section accepts two medical students during the alternate quarter, one clinical and research fellow who functions for a minimum of two years, and one or two medical residents who rotate through the Section at two-month intervals.

Section of Geriatrics

POMERANTZ, RHODA S., M.D.,
Director

The Section of Geriatrics has been concerned primarily with the continuing development of the Johnston R. Bowman Health Center for the Elderly, a comprehensive long-term care and residential facility for the elderly being built on the Medical Center campus.

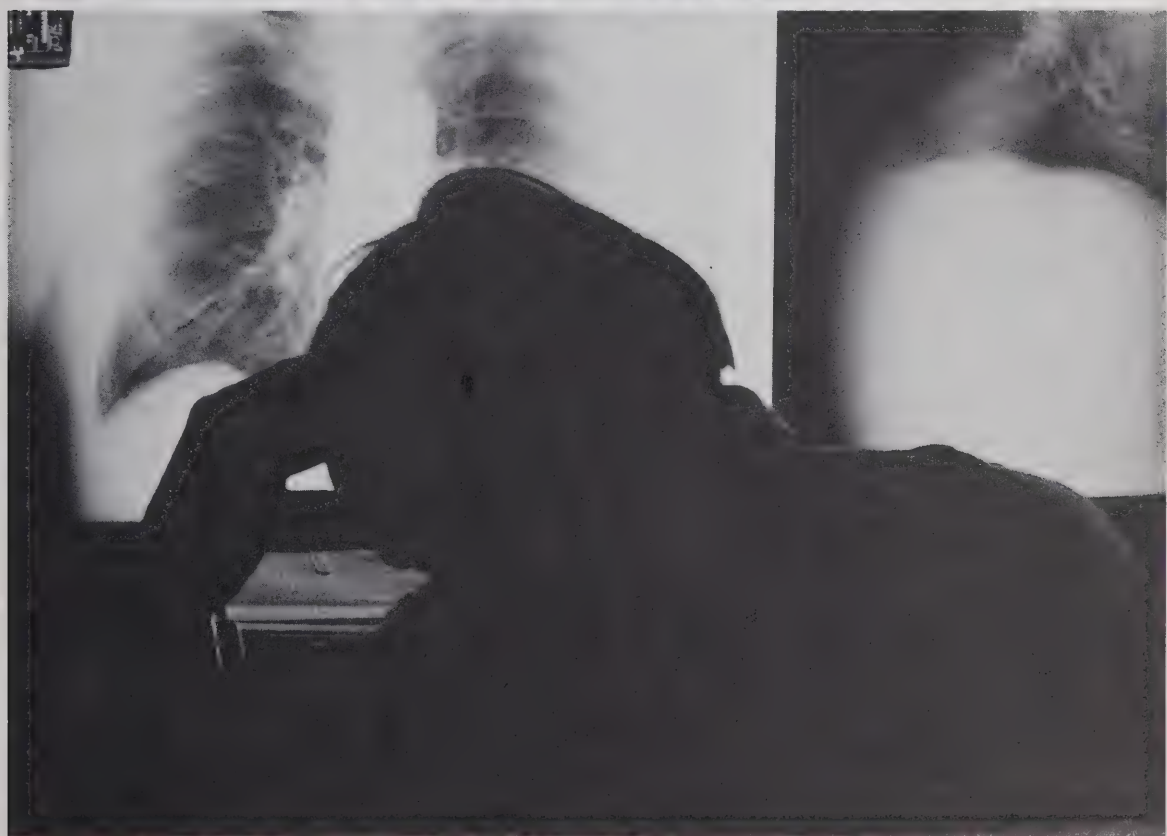
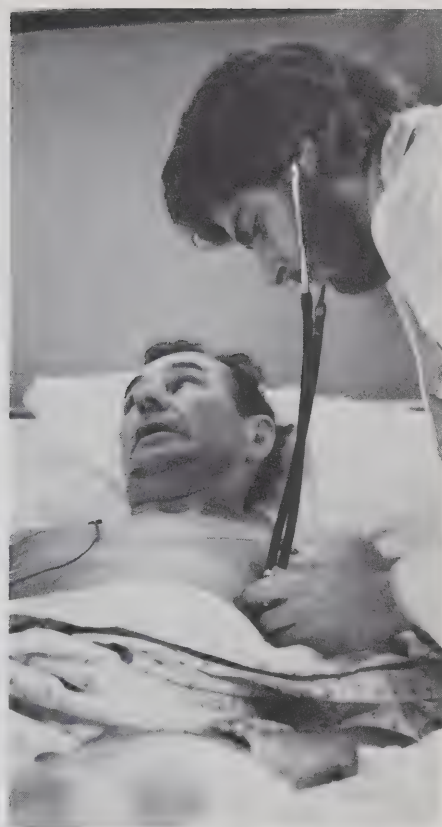
The basic orientation of the Johnston R. Bowman Health Park will be rehabilitation, restorative care, and reintegration of the patient into the community. This facility will include 176 restorative care beds and 32 apartments for independent elderly people, with a strong social program and preventive medicine component. The program calls for an elective house officer rotation in geriatrics.

Clinical activities of the Section include: (1) consultation on geriatric inpatients; (2) consultation on geriatric outpatients;

FOX, JACOB H., M.D.

and (3) direct care to community-based patients in conjunction with the Chicago Visiting Nurse Association and various social service agencies throughout Chicago.

During the past year, the Johnston R. Bowman Health Center was the central focus of an interdepartmental project to develop a process-oriented system of facility evaluation and patient review criteria and survey procedures for use in long-term care. A project has now been developed which is built on this quality evaluation system and on the State of Illinois automatic information systems for long-term care inspection, licensure, and medical review. This project has three primary objectives: to adapt and expand the quality system for use in the regulatory setting, to evaluate its usefulness as a



Geriatrics . . .

regulatory tool, and to weigh its usefulness against the feasibility of regulatory implementation. This project, underway, will be completed this year.

Clinical research has been directed to an attempt to identify

treatable conditions in elderly patients presenting with dementia and to correlate findings on computerized axial transverse tomography (EMI scan) with clinical patient observation.

Sections of Hematology

The Clinical and Laboratory Sections of Hematology are both concerned with patient care, research, and training. The two sections coordinate their efforts closely in applying clinical and laboratory diagnostic expertise to patient care, in teaching pre- and post-M.D. and Ph.D. students in both clinical and laboratory aspects of Hematology, and in conducting basic and applied research.

Clinical Fellowships are available and provide in-depth training in Hematology. The programs are designed to prepare Fellows for board certification in Hematology. Research Fellowships are designed to prepare Internist-Hematologists for a career in academic medicine. Research projects in selected areas of basic and/or clinical

Hematology are initiated by the Research Fellow in collaboration with a senior investigator in Hematology. Training in experimental design, biostatistics, data analysis and interpretation, and preparation of research reports is emphasized. In addition, the Research Fellow continues to participate in selected clinical activities in order to expand his clinical expertise. Fellows participate actively in the Section's teaching programs, both at the undergraduate and post-graduate levels, by conducting seminars, presenting lectures, and conducting teaching rounds. Applications should be made to Dr. Knospe or Dr. Trobaugh.

Section of Clinical Hematology

KNOSPE, WILLIAM H., Director
ADLER, SOLOMON, M.D.
FRISCHER, HENRI, M.D., Ph.D.
GREGORY, STEPHANIE A., M.D.

The Section of Clinical Hematology has primary responsibility for patient care and consultation in the clinical areas of hematologic malignancies, anemias, coagulation disorders, immunohematology, and non-malignant leukocyte disorders. Clinical responsibilities include primary, secondary, and tertiary levels of patient care. Teaching activities include: (1) daily hospital teaching rounds conducted by a senior hematologist and attended by hematology fellows, medical residents, and medical students on elective rotations in Hematology; (2) weekly patient-oriented clinical conferences; (3) weekly seminars on clinical and basic science topics important to Hematology; (4) weekly bone marrow morphology

McKENNA, RAJALAXMI, M.D.
PIERCE, MILA I., M.D.
SASSETTI, RICHARD J., M.D.
SHOWEL, JOHN, M.D.

conferences; and (5) multidisciplinary Lymphoma and Tumor Conferences. The teaching of Hematology to Phase II undergraduate medical students is shared with the Section of Laboratory Hematology during the organ system course in Hematology, presented once a year. Elective courses in advanced clinical and laboratory hematology are offered to Phase III medical students. The training of fellows in clinical and laboratory aspects of academic hematology is conducted collaboratively with the Section of Laboratory Hematology under a training grant from the National Institutes of Health. Programs are being developed to extend clinical consultative activities and teaching activities into the Rush network of

*Clinical
Hematology. . .*

community hospitals through periodic visits, teaching conferences, and residency training activities in general internal medicine.

Ongoing research studies in the Section of Clinical Hematology include: (1) ^{52}Fe studies of radiation-induced marrow aplasia in humans; (2) ^{52}Fe studies of bone marrow distribution in patients with hemopoietic disorders; (3) cytogenetic studies of bone marrow cells in leukemia; and (4) comparative studies of new

chemotherapies in acute and chronic leukemia, multiple myeloma, and Hodgkins and non-Hodgkins lymphoma. These studies are conducted in cooperation with and as part of the Southeastern Cancer Chemotherapy Group, an association of 20 university hospitals concerned with the development of new and more effective methods for the chemotherapeutic management of malignant disease.

*Section of Laboratory
Hematology*

**TROBAUGH, JR., FRANK E., M.D., The
Elodia Kehm Director of Hematology**
BACUS, JAMES W., Ph.D.
COLE, EDMUND R., Ph.D.

FRISCHER, HENRI, M.D., Ph.D.
McKENNA, RAJALAXMI, M.D.
SASSETTI, RICHARD J., M.D.

The Section of Laboratory Hematology provides the necessary laboratory information to establish diagnoses and provide hematologic measurements for all Medical Center patients. Included in this section is the Blood Bank, which provides full-service blood banking including provision of various component therapies and frozen blood. The Clinical Hematology Laboratory is highly automated and includes a dedicated computer to assist in expediting the reporting of results. Residents in Medicine and Pathology as well as post-doctoral studies in Biomedical Engineering pursue their training in these laboratories.

Diagnostic studies regularly performed in addition to standard procedures for counting and identifying blood cells include the determination of red blood cell mass and total blood volume, red blood cell survival time, blood loss in feces or in menstrual flow, iron kinetics, characterization of abnormal proteins, and quantitation of erythrocyte enzymes. A multitude of coagulation screening tests, individual coagulation factor assays, fibrinolytic tests, and platelet function studies are performed daily and allow an accurate characterization of most

bleeding disorders.

Continuing research efforts in the Section of Laboratory Hematology include: (1) studies of factors which regulate the numbers and differentiation of normal hemopoietic stem cells; (2) studies of the kinetics of hemopoietic stem cells in RFM mice with myeloid leukemia; (3) studies of saponin-induced myelofibrosis in rabbits; (4) studies of hemopoietic stem cells in S1/S1 mice; (5) studies of hemopoietic stem cells in the spleens, marrows, and blood of mice treated with ^{89}Sr ; (6) studies of hemopoietic stem cells and colony stimulating factor in saponin-treated mice; (7) study of automated acquisition of microscopic images in blood cell identification; (8) studies of specific areas of research concerned with automating the visual inspection processes in the Hematology Laboratory, including: (a) new ways of processing blood in monolayer films on glass slides; (b) quantitation of human observer error in image classification; (c) methods of scene segmentation and description; (d) mathematical techniques of pattern recognition and classification; and (e) quantitating estimators of erythrocyte morphology; (9) studies of the



*Laboratory
Hematology...*

biochemistry and physiology of fibrinolytic activators; (10) studies of the biochemistry and physiology of abnormal serum proteins associated with Vitamin K deficiency; (11) studies of ¹²⁵I fibrinogen as a diagnostic agent to

study the incidence of post-operative phlebothromboses in the legs; (12) study of the defective hemostasis of open heart surgery; and (13) studies of the genetics and biochemistry of erythrocytes.

*Section of
Infectious Diseases*

LEVIN, STUART, M.D., Director
DEAM, MALCOLM, M.D.
JUPA, JAMES, M.D., Chief, Surveillance Unit
HARRIS, ALAN A., M.D.

TRENHOLME, GORDON, M.D.
DEVETSHI, ROBERT, M.D., Consultant
LEPPER, MARK H., M.D., Consultant
WOLFE, CHARLES K., M.D., Consultant
SOKALSKI, STEVEN, D.O., Consultant

The Section of Infectious Diseases provides consultation for patients with infectious diseases in both the Hospital and the Health Center. It is responsible for continuing surveillance of infections in all areas of the Hospital and for appropriate preventive activities.

The teaching activities of the Section include daily formal and informal consultative rounds.

The developing investigative activities of the Section presently concern: (1) the study of the epidemiology and control of infections acquired during hospitalization (in this study, the hospital surveillance team's data are a major resource); (2) clinical

pharmacological studies of antibacterial chemotherapy; (3) studies on the evolution of antibiotic-resistant organisms; (4) active research with the Municipal Contagious Disease Hospital on hepatitis, pertussis, and viral and bacterial meningitis, as well as joint investigations of major citywide outbreaks, such as measles, diphtheria, and meningitis; (5) use of Department of Microbiology facilities for investigations in bacteriology and virology; and (6) investigation of infectious etiologies of the rheumatic diseases and aplastic anemia.

Section of Nephrology

LEWIS, EDMUND J., M.D., Director

RENNIE, I. DRUMMOND, M.D., Associate Director

Patients with hypertension, diseases of the kidneys and genitourinary tract, or electrolyte and metabolic problems are studied by the staff of the Nephrology Section. The laboratories of the Unit are available for many special studies, including immunological investigations and renin assays. There are active acute and chronic dialysis programs. Patients with chronic intermittent dialysis or transplantation are cared for by the staff of the Section. Metabolic aspects of hemodialysis are being investigated in the latter patients. Close associations exist with the Departments of Pathology, Surgery, Urology, Radiology, and Preventive Medicine in teaching,

patient care, and research. The Section is pursuing active research on immunological aspects of renal disease and on hypertension. In addition, cooperative studies in the field of high altitude physiology have been conducted with colleagues in Peru, Nepal, and Canada.

Each day there is teaching at the bedside by the staff, and there are daily clinical conferences with the renal pathologists to review tissues from patients who have had renal biopsies. Each week there are regular research meetings, a Renal-Urologic-Radiologic Conference, and a Nephrology Conference.

Members of the resident staff are assigned to the Section for two months at a time and research

Nephrology . . .

fellowships are available at the end of the second year of residency training. Usually there are from four to six research fellows in the Section who assist in outpatient

and inpatient teaching and patient care. Applications for fellowships should be made to the director of the Section.

Section of Oncology

PERLIA, CHARLES P., M.D., Director
HOELTGEN, THOMAS, M.D.
SHOWEL, JOHN, M.D.
SLAYTON, ROBERT E., M.D.

WOLTER, JANET, M.D.
TAYLOR II, SAMUEL G., M.D., Consultant

To the medical student, the intern, the resident, and many older physicians, the word "cancer" implies a relentless, painful, and ultimately fatal illness. Such an attitude frequently leads to neglect and indifference to the special needs of the cancer patient. In addition to demonstrating new techniques for early diagnosis and treatment, the educational program of the Section of Medical Oncology emphasizes that patients with cancer may live long, productive, and useful lives if properly treated.

The Section of Oncology currently sees 600-700 new cancer patients per year, who provide an ample and varied spectrum of oncological problems. The residents and fellows will be able to follow and study these patients under the direction of members of the Section. New patients and problems are routinely discussed at biweekly Section meetings.

The Section's program stresses the importance of a combined approach to tumor therapy using the resources of the Departments of Surgery, Therapeutic Radiology, Pathology, and Nuclear Medicine.

Each week there is a Tumor Conference, Lymphoma Conference, and Gynecologic Tumor Conference, which are working examples of the Section's interdisciplinary approach to the problems of cancer patients. In addition, the Section is involved in many of the clinical trials sponsored by the Eastern Cooperative Oncology Group and the Gynecologic Oncology Group.

The Section offers to third and fourth year medical students an eight-week elective course in the fundamentals of tumor biology and behavior. A four-week rotation stressing clinical aspects of cancer is offered for interns and residents.

One- or two-year clinical fellowships are available and provide in-depth training in medical oncology, with rotation through Hematology, Pathology, and Therapeutic Radiology. The program is designed to prepare the fellow for Board Certification in Medical Oncology. Application should be made to the Director of the Section.

*Section of
Pulmonary Medicine*

CARTON, ROBERT W., M.D., Director
BONBREST, HELEN C., M.D.

CARASSO, BEN, M.D.

The Pulmonary Medicine Unit consists of the Pulmonary Function Laboratory, the Respiratory Therapy Department, and the Chest Physical Therapy Department. Clinically, it is concerned with both acute and chronic diseases related to the lungs and is closely integrated with the thoracic

sections of surgery, radiology, and pathology. Senior clerkships, elective intern rotations, rotations and fellowships are available. House officers and students receive exposure to a wide variety of chest diseases, pulmonary physiology, interpretation of pulmonary function tests, ventilator and blood

*Pulmonary
Medicine . . .*

gas management, bronchial hygiene, and, where appropriate, rehabilitative techniques in chronic lung disease. There are regularly scheduled multidisciplinary conferences held both within the

Medical Center and with other universities in Chicago, and teaching opportunities are available at student-therapist-house officer-fellow levels.

*Section of
Rheumatology*

There has been established recently the Willard Wood Chair of Rheumatology. Dr. John Verrier Jones has been appointed as an occupant of this Chair and will arrive at this institution during the summer of 1976. There has been present a complement of clinical

rheumatologists who oversee student and house officer training in this area. In addition, members of the Department of Immunology have also been active in the teaching program in Rheumatology.

**Department of
Neurological Sciences**

**COHEN, MAYNARD M., M.D., Ph.D.,
The Jean Schweppe Armour Chairman of
Neurology**

AVERY, LOREN W., B.A., M.D.,
Emeritus, RMC and Emeritus, PSLH
(also Psychiatry)

BAILEY, ORVILLE T., B.A., M.D.,
Visiting Professor, RMC and Consultant,
PSLH

BERGEN, DONNA, B.A., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH

BERGER, VICTOR P., B.A., M.D.,
Instructor, RMC

BRUETMAN, MARTIN E., B.A., M.D.,
Professor, RMC

COCHRAN, JOHN W., B.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

COHEN, MAYNARD M., B.S., M.D.,
Ph.D., Professor, RMC and Senior
Attending, PSLH

DAVIS, FLOYD A., B.S., M.D., Professor,
RMC and Senior Attending, PSLH (also
Biomedical Engineering)

DeTOLEDO, LEYLA, B.A., M.A., Ph.D.,
Visiting Professor, RMC

FISHER, MORRIS A., B.A., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

FOX, JACOB H., M.D., Associate
Professor, RMC and Associate Attending,
PSLH (also Internal Medicine)

FROST, THOMAS M., B.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

GARVIN, JOHN S., B.A., M.D., Visiting
Professor, RMC and Senior Attending,
PSLH (also Psychiatry)

GROSSMAN, HERBERT J., B.S., M.D.,
Professor, RMC and Senior Attending,
PSLH (also Pediatrics)

HARRISON, WILLIAM H., B.S., M.S.,
Ph.D., Professor, RMC (also
Biochemistry)

HARTMANN, J. FRANCIS, A.B., Ph.D.,
Professor, RMC and Senior Scientist,
PSLH

HERBA, EDWARD J., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH

HOEPPNER, THOMAS J., B.S.C., M.A.,
Ph.D., Assistant Professor, RMC

HOSKIN, FRANCIS C. G., B.A., M.A.,
Ph.D., Visiting Professor, RMC

HUCKMAN, MICHAEL S., B.A., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH (also Diagnostic
Radiology)

ILAH, MUHAMMAD M., B.S.C.,
M.B.B.S., Assistant Professor, RMC and
Assistant Attending, PSLH

KESSLER, ELIZABETH, B.A., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

MEDINA, JOSE L., B.S., M.D., Instructor
MELYN, MICHELLE, B.A., M.D.,

Assistant Professor, RMC and Assistant
Attending, PSLH (also Pediatrics),

MICHAEL, JOEL A., B.S., M.S.C., Ph.D.,
Associate Professor, RMC (also
Biomedical Engineering)

MORRELL, FRANK, B.A., M.S., M.D.,
Professor, RMC and Senior Attending,
PSLH

NEER, DAVID D., B.S., M.D., Instructor,
RMC and Assistant Attending, PSLH

PAGE-EL, EDWARD, B.S., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH (also Pediatrics)

PAVLOU, MARCIA, B.A., M.A., Ph.D.,
Assistant Professor, RMC and Assistant
Scientist, PSLH (also Psychology)

PROSKE, ANTHONY, B.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

REYES, MARCELINO G., B.S., M.D.,
Assistant Professor, RMC

SCHAUF, CHARLES L., S.B., Ph.D.,
Associate Professor, RMC (also
Physiology)

SELLA, MICHAEL Z., B.S., M.D.,
Assistant Professor, RMC

Neurological Sciences...

SHENKER, DAVID M., A.B., M.D.,
Assistant Professor, RMC and Assistant Attending, PSLH
SHIVDE, ANURADHA J., M.B.B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
STEFOSKI, DUSAN, M.D., Instructor, RMC and Adjunct Attending, PSLH
TOPEL, JORDAN L., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

WAXMAN, JORDAN, B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Internal Medicine)
WECHSLER, MELODY, B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
WHISLER, WALTER, A.B., M.D., Ph.D., Professor, RMC and Senior Attending and Senior Scientist, PSLH (also Neurosurgery)

The Department of Neurological Sciences is responsible for inpatient and outpatient neurological services, offering both consultation and direct patient care. Training in neurology and the related neurosciences is provided at the pre- and post-doctoral levels for undergraduates and house staff members.

The Neurology Residency Training Program is fully accredited. Two residents are appointed to the Department of Neurological Sciences each year. All residents have an opportunity to learn the fundamentals of clinical neurology in outpatient clinics and inpatient and consultation services. They have an opportunity to learn various special neurologic procedures, including spinal and cisternal puncture, neuro-ophthalmologic and neuro-otologic studies, electroencephalography, electromyography and pneumoen-

cephalography, arteriography, and myelography.

The first year of the residency program is devoted to clinical services plus a rotation in electroencephalography. The second year consists of a six-month full-time rotation in neuropathology and six months on the clinical inpatient services. The final year includes separate rotations in neuropediatrics and neuroradiology and a six-month elective period that can be devoted to laboratory or clinical research or to more specialized clinical training such as neuro-ophthalmology.

Teaching exercises include weekly neurologic grand rounds and neuropathology conferences. Conferences and seminars are held in neuroradiology, neurochemistry, neurophysiology, neuroanatomy, and interpretation of computerized tomographic scans.

Department of Nuclear Medicine

FORDHAM, ERNEST W., M.D.,
Chairman
ALI, AMJAD, M.B.B.S., Instructor, RMC and Assistant Attending, PSLH
FORDHAM, ERNEST W., B.S., M.D., Professor, RMC and Senior Attending, PSLH (also Diagnostic Radiology)
RAMACHANDRAN, PANOLIL C., M.B.B.S., Instructor, RMC and Assistant Attending, PSLH

RAYUDU, GARIMELLA V., B.S., M.S., Ph.D., Assistant Professor, RMC and Associate Scientist, PSLH
TURNER, DAVID A., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Diagnostic Radiology)

Nuclear Medicine occupies a new 8,500 square foot facility with a large modern radiopharmacy and gas laboratory. Equipment includes high-speed dual probe scanners, tomographic scanning, scintillation cameras with rapid sequence capabilities for dynamic studies, automatic liquid scin-

tillation and gamma counters, and other tracer and monitoring equipment. The Department operates under the supervision of the isotope committee governing the broad medical license issued to the institution by the Atomic Energy Commission.

Well over 8,000 scanning



Nuclear Medicine...

procedures are performed yearly with routine scanning of most organs with short-half-lived isotopes. A modest number of tracer studies are also performed.

The Department now conducts a residency training program in nuclear medicine, in addition to providing the nuclear medicine portion of training for both the diagnostic radiology and therapeutic radiology residency programs. Within the Department or the institution as a whole, there are offered yearly courses in physics

and basic radioactive isotope techniques, refresher courses for board certification, and radiopharmaceutical workshops for technicians, physicians, and radiopharmacists. Elective clerkship rotations are offered for medical students. The Department participates in various grand rounds, conferences, and daily discussions with house staff and medical students, correlating clinical problems with results of scanning procedures.

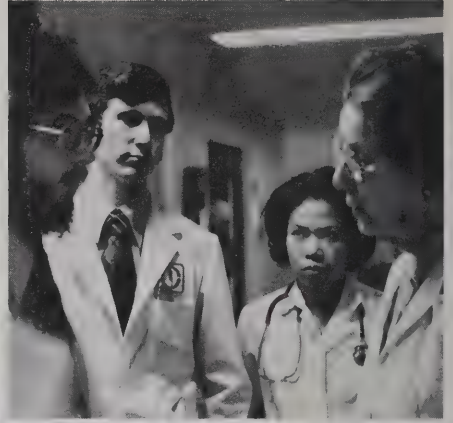
Department of Pediatrics

CHRISTIAN, JOSEPH R., M.D., The Woman's Board Chairman of Pediatrics
AGARWALA, BROIENDRA N., M.D., Assistant Professor, RMC
ALLEN, RICHARD R., M.D., Assistant Professor, RMC
ANTHONY, PAUL K., M.D., Associate Professor, RMC
BALAGTAS, ROLANDO C., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
BELKENGREN, RICHARD P., M.D., Instructor, RMC and Adjunct Attending, PSLH
BEVERLY, BERT I., M.D., Assistant Professor, RMC
BHARANI, SAKINA, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
BHARATI, SAROJA, M.D., Assistant Professor, RMC
BIGGS, ALFRED D., M.D., Emeritus, RMC and Emeritus, PSLH
BRAUN, LEONARD L., M.D., Assistant Professor, RMC and Adjunct Attending, PSLH
BROCKEN, CECILIA, B.S., M.A., Ph.D., Associate Professor, RMC and Associate Scientist, PSLH (also Psychology and Social Sciences)
BUCHELERES, H. GUNTHER, M.D., Professor, RMC and Senior Attending, PSLH
BUTLER, CRAIG D., M.D., Emeritus, RMC and Emeritus, PSLH
CANTEZ, TALAT, M.D., Associate Professor, RMC and Assistant Attending, PSLH
CANTORNA, BERNARD, M.D., Assistant Professor, RMC
CHANG, TIMOTHY C., M.D., Instructor, RMC and Adjunct Attending, PSLH
CHAUDHARY, MOHAMMAD Y., M.D., Instructor, RMC and Adjunct Attending, PSLH
COSTELLO, CHRISTINE T., M.D., Instructor, RMC and Adjunct Scientist, PSLH

CZERNIEJEWSKI, RICHARD, M.D., Instructor, RMC and Adjunct Attending, PSLH
DAMMERS, WARREN R., M.D., Lecturer, RMC and Consultant, PSLH
DAMPTZ, ROBERT E., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Psychiatry)
DAY, DONALD W., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
DIAMOND, EUGENE R., M.D., Visiting Professor, RMC
DOCHIOS, MARY, M.D., Assistant Professor, RMC
DRISCOLL, THOMAS P., M.D., Assistant Professor, RMC
ELAM, HARRY P., M.D., Professor, RMC and Senior Attending, PSLH (also Preventive Medicine)
ERIKSEN, RONALD G., M.D., Instructor, RMC
FUNK, JEANNE, A.B., Ph.D., Assistant Professor, RMC and Assistant Scientist, PSLH (also Psychology and Social Sciences)
GARDNER, H. REX, M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Radiology)
GEWURZ, ANITA T., M.D., Instructor, RMC and Adjunct Attending, PSLH (also Immunology)
GEWURZ, HENRY, M.D., Professor, RMC and Senior Attending, PSLH (also Immunology)
GROSSMAN, AARON, M.D., Professor, RMC and Senior Attending, PSLH
GROSSMAN, HERBERT J., M.D., Professor, RMC and Senior Attending, PSLH (also Neurological Sciences)
HENIKOFF, LEO M., M.D., Associate Professor, RMC and Associate Attending, PSLH
HENN, S.C., M.D., Emeritus, RMC and Emeritus, PSLH
HYDE, JOHN S., M.D., Professor, RMC and Senior Attending, PSLH
ISRAEL, JEANNETTE, M.D., Instructor, RMC and Adjunct Attending, PSLH

Pediatrics...

- JOHNSON, FRANK R., M.D., Associate Professor, RMC and Senior Attending, PSLH (also General Surgery)
- JONES, CLAY H., JR., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Preventive Medicine)
- JUNG, EDUARD, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- KALIANA, MUTHUKUMARAN, M.D., Instructor, RMC and Adjunct Attending, PSLH
- KALLICK, CHARLES, M.D., Associate Professor, RMC and Associate Attending, PSLH (also Preventive Medicine)
- KAPADIA, PRAVIN, M.B.B.S., Assistant Professor, RMC
- KATELE, ELVYRA, M.D., Member, RMC
- KEITH, L. EUGENE, M.D., Associate Professor, RMC and Senior Attending, PSLH
- KHURANA, C. MOHINI, M.B.B.S., Associate, RMC
- KINTANAR, FELISMENO, M.D., Instructor, RMC and Adjunct Attending, PSLH
- KOINIS, KOSTAS E., M.D., Associate, RMC
- KURUP, RAMACHANDRA, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- LEV, MAURICE, M.D., Distinguished Professor, RMC (also Internal Medicine)
- LIMP, CHARLES, M.D., Instructor, RMC
- LIN, SUN KUANG, M.D., Instructor, RMC
- LUKENS, ABBIE R., M.D., Assistant Professor, RMC
- MANDEL, ELIAS, M.D., Associate, RMC
- MARIYAPPA, M. PRABHAVATH, M.B.B.S., D.C.H., Instructor, RMC and Adjunct Attending, PSLH
- MEDENIS, RUTE S., M.D., Associate Professor, RMC and Associate Attending, PSLH
- MEIER, WERNER, M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Obstetrics and Gynecology)
- MELYN, MICHELLE, M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Neurological Sciences)
- MERCER, JEANNE K., M.D., Assistant Professor, RMC
- MILLER, HOWARD R., M.D., Assistant Professor, RMC and Emeritus, PSLH
- MILLER, ROBERT A., M.D., Visiting Professor, RMC and Consultant, PSLH
- MINI, JAMES A., M.D., Assistant Professor, RMC
- MORALES, SILVO D., M.D., Assistant Professor, RMC and Senior Attending, PSLH
- MUENSTER, JOSEPH J., M.D., Associate Professor, RMC and Senior Attending, PSLH (also Internal Medicine)
- MUKUNDAN, PADMANABHAN, M.D., Associate, RMC
- NAGLE, HENRY, M.D., Lecturer, RMC
- NARAYAN, M.S. LAXMI, M.D., Associate, RMC and Assistant Attending, PSLH
- OBERG, GARY R., M.D., Instructor, RMC and Adjunct Attending, PSLH
- OSOFSKY, STEPHEN G., M.D., Instructor, RMC and Adjunct Attending (Fellow), PSLH (also Immunology)
- PACHMAN, DANIEL JAMES, M.D., Professor, RMC and Consultant, PSLH
- PAGE-EL, EDWARD, M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Neurological Sciences)
- PAUL, SHASHI D., M.D., Associate, RMC and Assistant Attending, PSLH
- PEREZ, ADOLFO A., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- PIERCE, MILA IONE, M.D., Distinguished Professor, RMC and Associate Attending, PSLH (also Internal Medicine)
- PROTEAU, ROSEANNE V., M.D., Assistant Professor, RMC and Associate Attending, PSLH (also Preventive Medicine)
- PUC, FRANK C., M.D., Assistant Professor, RMC and Associate Attending, PSLH
- RAO, SRIPATHY, M.D., Associate, RMC and Assistant Attending, PSLH
- RATAJIK, ALYDA R., M.D., Assistant Professor, RMC
- RATHI, MANOHAR L., M.D., Assistant Professor, RMC
- RAYCRAFT, WILLIAM B., M.D., Emeritus, RMC
- REDDI, K.T., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
- ROSENTHAL, IRA M., M.D., Professor, RMC and Consultant, PSLH
- SACHDEVA, SHANTA, Ph.D., Lecturer, RMC and Assistant Scientist, PSLH
- SACKS, MARTIN O., M.D., Assistant Professor, RMC
- SANFORD, HEYWORTH N., M.D., Emeritus, RMC and Emeritus, PSLH
- SANTUCCI, BARBARA, M.D., Assistant Professor, RMC and Associate Attending, PSLH (also Internal Medicine)
- SCHWARTZ, DONALD P., M.D., Assistant Professor, RMC and Adjunct Attending, PSLH
- SHAW, NOEL G., M.D., Emeritus, RMC and Emeritus, PSLH
- SHMIGELSKY, IRENE, M.D., Assistant Professor, RMC and Associate Attending, PSLH
- SINHA, SACHCHIDA N., M.D., Member, RMC and Adjunct Attending, PSLH
- SPAETH, RALPH, M.D., Emeritus, RMC
- STEPAN, C. EDWARD, M.D., Emeritus, RMC and Emeritus, PSLH



Pediatrics. . .

STINE, ROBERT H., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 STROKOSCH, GARY R., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 SWARTS, CHARLES L., M.D., Associate Professor, RMC and Associate Attending, PSLH
 TAKHTEHCHIAN, MOHAMMAD T., M.D., Instructor, RMC and Adjunct Attending, PSLH
 TUNESTAM, NILS J., M.D., Assistant Professor, RMC
 VEDAM, VENKATAS, M.D., Assistant Professor, RMC and Adjunct Attending, PSLH

VERCOE, JAMES L., M.D., Assistant Professor, RMC
 WALLIN, PAUL E., M.D., Instructor, RMC
 WILLIAMS, RICHARD F., M.D., Assistant Professor, RMC
 WIRTSHAFTER, ROBERT, M.D., Assistant Professor, RMC
 WONG, PAUL W., M.D., Professor, RMC and Senior Attending, PSLH (also Internal Medicine)
 ZERVOPOULOS, EVANGELIA, M.D., Instructor, RMC

The Department of Pediatrics inpatient unit includes beds for newborns, infants, children, and adolescents. The patient areas are divided into a Section of Neonatology, with separate nurseries for well babies, and a Perinatal Center, including the neonatal intensive care and the neonatal intermediate care units; pediatric surgical (15 beds), intensive care (6 beds), and intermediate care (6 beds) units; a general pediatric unit of 31 beds for infants and children 12 years of age and under; and 22 beds for adolescents and young adults 13 to 21 years of age. Inpatient admissions are approximately 6,000 per year, with equal distribution of medical and surgical patients. Approximately one-half of the patient admissions are private.

The staff includes 45 full time, 5 part time, and 56 volunteer members. The teaching program correlates medical student and house staff training. This type of training program results in an ever-increasing opportunity for the house staff to participate in academic teaching and research. Daily experience is directed primarily toward the understanding of basic principles and practices of pediatrics.

First-year training consists of inpatient and outpatient assignments, with rotation through neonatal, general pediatric medical, pediatric surgical, adolescent and young adult services, and developmental

pediatrics.

Outpatient experience includes appropriate services integrated with the inpatient program. Specialty experience is available in general pediatrics, in pediatric medical and surgical specialty clinics, and on an inpatient and outpatient basis in growth and development, preventive pediatrics, allergy, cardiology, endocrinology and metabolism, genetics, hematology, psychiatry, psychology, neurology, radiology, poison control, accident prevention, and birth defects.

The medical pediatric outpatient service includes daily general pediatric clinics and adolescent, allergy, cardiology, child development, dermatology, genetics, renal, neonatal pathology, and well baby clinics. The outpatient services also include the surgical specialty clinics in chest, dental, E.N.T., gynecology, neurosurgery, ophthalmology, orthopedics, plastic surgery, general surgery, tumor, and urology specialties. The number of outpatient visits per year approximate 60,000 in the Section of Ambulatory Pediatric Services. The Emergency Room is staffed by residents, with continuous consultation service by the full-time and volunteer staff.

The neonatal nurseries are under the direction of the Department of Pediatrics. Approximately 300 infants are delivered each month. Under close supervision, the trainee

becomes acquainted with the newborn infant during and after discharge from the hospital.

The trainee receives inpatient responsibility and teaching experience under the direct supervision of a senior resident and volunteer or full-time staff members. Attending pediatricians act as supervisors and consultants to the pediatric residents.

The PL 2 (second-year trainee) rotates through outpatient specialty services, inpatient services, and contagious diseases with supervisory responsibility for PL 1 trainees and junior and senior medical students. The PL 3 (third-year trainee) rotates through allergy/clinical immunology, cardiology, and elective services. Cardio-respiratory diseases, including rheumatic fever, congenital heart defects, and collagen diseases, are presented in the outpatient and inpatient services, using the facilities of the cardio-respiratory laboratory and chest

disease service. The resident receives experience under direct supervision of a qualified pediatrician, internist, and surgeon, with full-time and volunteer staff members as consultants. Student teaching and outpatient responsibility are increased during advanced training. Students on the outpatient and inpatient services are assigned to the residents for teaching purposes during specific periods of the week.

A graduate program in pediatric research and teaching is offered as an elective only to selected residents who have completed a two- or three-year program. Not all residents are expected to complete three or more years of training. The graduate program consists of assignments in specialty services such as allergy/clinical immunology, cardiology, hematology, oncology, psychiatry, infectious disease, genetics, neonatology, adolescence, child development, and ambulatory pediatrics.

Section of Adolescent and Young Adult Medicine

STROKOSCH, GARY R., M.D., Director

Adolescent and Young Adult Medicine is rapidly becoming an important part of the practice of medicine. The Section's inpatient unit of 22 beds and its outpatient unit are both geographically separated from the Pediatric areas. Patients 13 to 21 are cared for in these areas. The house staff consists of PL 1 and PL 2 trainees who are assigned as part of their pediatric rotation. Medical, surgical, and various subspecialty patients are admitted to the unit and are the immediate responsibility of the assigned house staff. While surgical patients are cared for by the various surgical services, the assigned medical house staff are expected to be familiar with the problems and complications of the surgical patients and deal with them when necessary.

The aim of this section is to study and treat illnesses occurring in this age group, recognizing that this is a

time of great physiological and psychological stress. Special effort is made to keep hospitalization from becoming in any way a traumatic experience. Consultants in surgery, psychiatry, internal medicine, and psychology are readily available.

The outpatient clinic serves as the home medical clinic and, although consultations are readily available, every effort is made to keep the patient in the home clinic rather than to have care administered only by a specialty clinic. The clinic is physically adjacent to the adolescent prenatal and family planning clinic, where a close working relationship is maintained with the Department of Obstetrics and Gynecology. Drug abuse problems are dealt with by staff members of the Section.

Seminars are held periodically to discuss various adolescent problems of both organic and non-organic etiology.

*Section of Ambulatory
Pediatrics*

ELAM, HARRY P., M.D., Director

The diversified program in Ambulatory and Community Pediatrics is designed to prepare the fellow for a career either in pediatric practice or in academic ambulatory pediatrics. Clinics in the hospital outpatient department offer supervised experience in screening and crisis care, comprehensive care, continuity care, preventive pediatrics, adolescent medicine, and subspecialties. Beds are available for admission of patients on a non-quota basis. Although fellows do not have in-patient obligations, they have the opportunity to follow their own patients during hospitalization. The availability of beds for admission and the availability of visiting nurses for follow-up help assure continuity of care.

The program affords an opportunity to work with Medical Center multidisciplinary groups dealing with children with learning disorders, developmental problems, and multiple handicaps. Experience is gained in the effective use of resources such as nutritionists, psychologists, public health nurses, social workers, and community agencies.

*Section of Newborn
Medicine*

MEIER, WERNER A., M.D., Director

The newborn service has 3,000 babies a year admitted from mothers delivered at Rush-Presbyterian-St. Luke's Hospital. Approximately one-third are private patients; the balance are admitted primarily through the Health Center and Mile Square Health Center.

Over 300 infants a year are admitted into the special care nursery, which includes eight intensive care isolette units and 12 intermediate care units. A comprehensive perinatal approach is emphasized, with close cooperation of the obstetric service, including a weekly obstetric-pediatric conference in which

Fellows participate in pediatric grand rounds and multidisciplinary conferences. Arrangements are made with staff pediatricians for the fellow to gain experience in office pediatrics. The flexibility of the program allows the interested fellow to emphasize certain aspects of ambulatory care, *e.g.*, developmental pediatrics.

Fellows assume teaching responsibility for four to six junior medical students each quarter. In addition, each fellow undertakes an investigative project of his own choosing.

Special assignments include: formal outpatient case conferences and presentations to neurologists, cardiologists, infectious disease consultants, hepatologists, and other visiting or regular consultant services. The Section is involved in research into new ways to provide ambulatory care, including exploration and unifying private and clinic practice to provide one standard of medical care for all children.

A one- or two-year program is available to applicants who have completed two years of approved pediatric internship-residency training.

pertinent cases (mother and newborn) are discussed by both services. There is a monthly Perinatal Mortality conference. Rush-Presbyterian-St. Luke's Medical Center has been selected by the Board of Health of the State of Illinois as one of the Regional Perinatal Centers for the City of Chicago and nearby counties. This will lead to active working and teaching activities in the community hospitals, and to a very specialized system for transporting sick infants into our Medical Center.

Pediatric first- and second-year trainees are assigned to the newborn service for three months rotation: the first-year trainee has direct responsibility for patient care under the supervision of the

second-year trainee and the newborn service staff. Trainees from other services are assigned to the newborn service. Third-year medical students spend part of their pediatric clerkship in the newborn service. Also, fourth-year medical students may elect a newborn service rotation with patient care responsibility under supervision of the nursery staff.

Three clinical fellows in newborn medicine supervise patient care, assist with teaching and service

activities, and participate in research and other special projects. Work rounds and attending rounds are held daily.

The special nursery clinic provides follow-up continuity of care for those babies with continuing problems related to the perinatal period after they have been discharged from the nursery. Well child care is provided in clinics oriented toward normal growth and development and prevention of disease.

*Section of Allergy and
Clinical Immunology*

HYDE, JOHN S., M.D., Director

Allergy/Clinical Immunology training includes both inpatient and outpatient experience. The first-year resident spends approximately 80 percent of his time with patients in the pediatric and adult clinics. Teaching consists of informal ward rounds, journal clubs, immunology lectures, basic science seminars, and patient presentation conferences. By prior individual arrangement the resident spends two or three months each, on a part-time basis, in at least two of the following outpatient clinics or laboratories: dermatology, otolaryngology, child psychiatry, pulmonary medicine, microbiology, and research immunology.

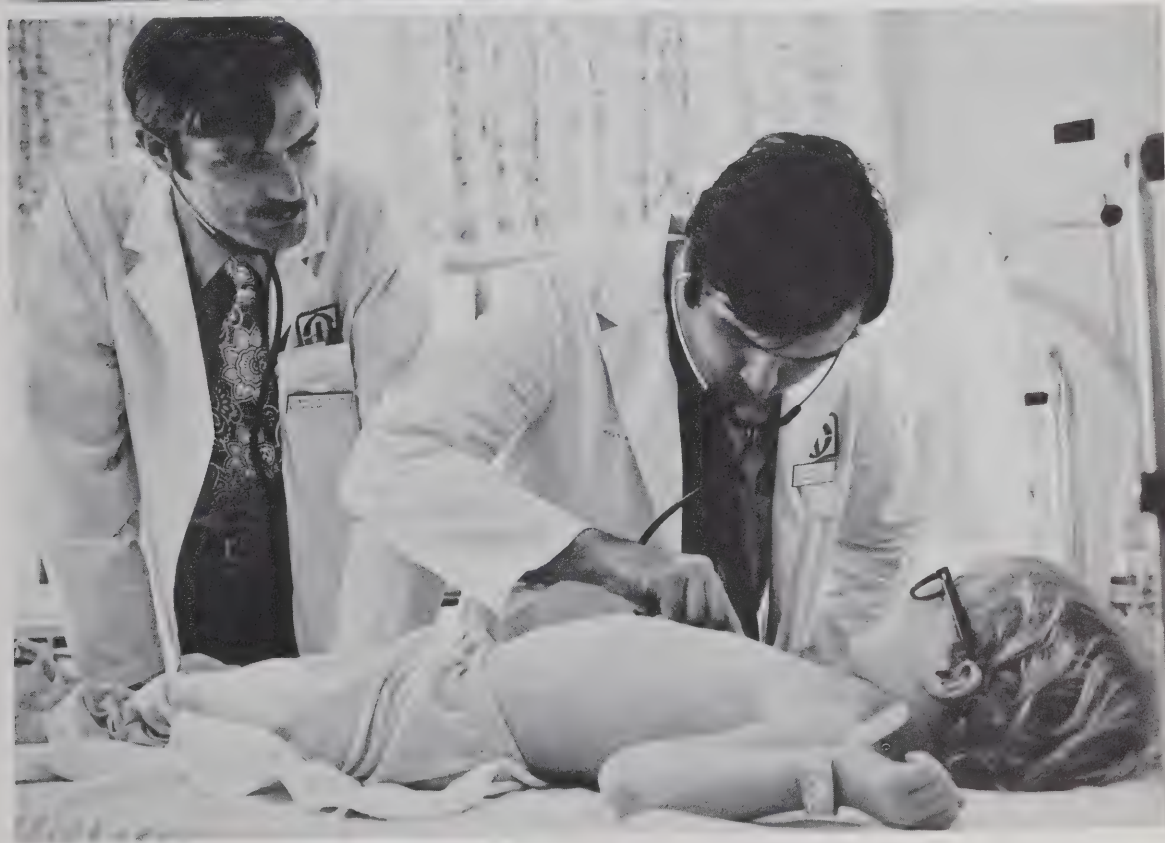
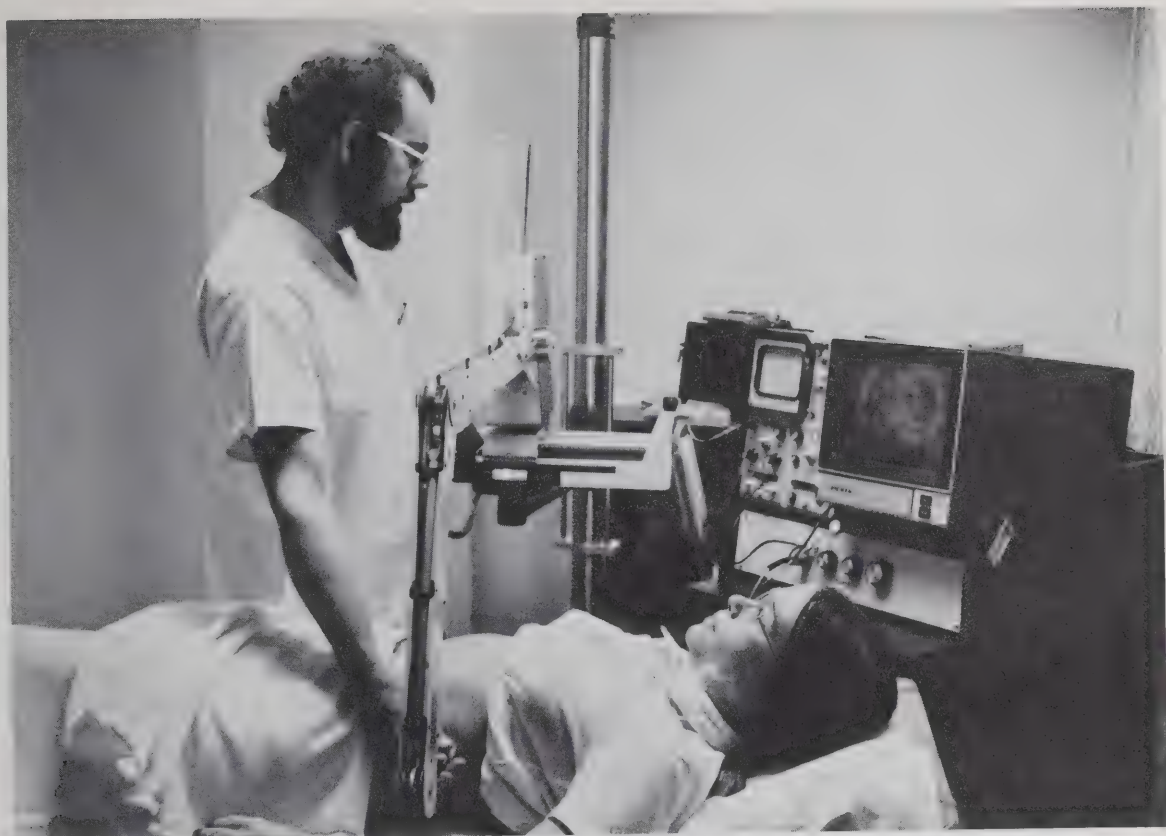
Basic and clinical immunology studies include one quarter of formal lectures and laboratory work in the graduate departments of microbiology and/or immunology. Applications of the tools of clinical immunology include total circulating eosinophils and nasal smears for eosinophils, standard quantitative immunoglobulin determinations, immuno-electrophoresis, passive transfer tests, migration-inhibition tests, blast transformation, histamine release from leukocytes; newer immunologic techniques include thymus cell and complement function.

The resident is expected to see as

many hospitalized patients as possible with hypersensitivity diseases and attend the outpatient services and the Emergency Room. In all these, consultations are made by the allergy/clinical immunology trainee in the presence of a certified allergist. Responsibility for the care of allergy/immunology patients is usually assumed by the resident after six months of supervised experience. Upon assuming consultation responsibilities, the resident and his work are subject to review by a member of the allergy/clinical immunology staff. The outpatient facility consists of three children's and two adult clinics at the Presbyterian-St. Luke's Hospital and one children's and one adult clinic at University of Illinois Hospital.

During their residencies in the section, physicians are involved in various research projects. Usually, the first-year resident works on an investigative problem already in progress. The second-year resident is expected to devote at least half of his time to a specific research study, sometimes purely laboratory and sometimes partly clinical. Programs for M.S. and Ph.D. degrees can be arranged. This special arrangement was not established to discourage candidates who wish to become practicing consultants in the subspecialty, but to broaden the spectrum of the program.

An ancillary program in adult



Allergy and Clinical Immunology . . .

allergy is available through the cooperation of the allergy unit of the Department of Medicine at the Abraham Lincoln School of Medicine. This program consists of three hours per week for one year at

the outpatient clinic of the University of Illinois Hospital, plus one hour per week at the West Side Veterans Administration Hospital.

Section of Pediatric Cardiology

BUCHELERES, H. GUNTHER, M.D.,
Director

The Section staff consists of two full-time pediatric cardiologists. The program is approved for two years of training required for certification in this subspecialty. Residents in their general pediatric training are assigned for a three-month rotation. The Section provides an elective clerkship for medical students.

Approximately 1,200 outpatient examinations are conducted in several clinics and 300 to 350 patients are admitted to the in-patient service per year. Approximately 120 children undergo cardiovascular surgical procedures during the course of the year. Surgery is preceded by a conference with the surgical staff. The members of the Section of Pediatric Cardiology participate in intra- and post-operative patient care. Most children return directly from the operating room to the Pediatric Intensive Care Unit.

Training is given in all aspects of clinical and laboratory diagnosis of heart disease in children. Clinical conferences, ward rounds, and responsibility as a consultant to the

pediatric house staff develop the trainees' experience in bedside diagnosis and therapy. Laboratory techniques are acquired in the Cardio-Respiratory Laboratory, which is equipped with excellent facilities for diagnostic and investigative endeavor. Members of the laboratory staff share the teaching of cardiopulmonary physiology. Annually between 170 and 180 cardiac catheterization studies are performed in infants and children.

Detailed analysis of the pathologic anatomy of cardiovascular disease is pursued in collaboration with the Congenital Heart Disease Research and Training Center located near the Medical Center. Our trainees in Pediatric Cardiology enhance their knowledge of embryology and cardiopulmonary pathology during assignments of one month per year to the Center, and its director conducts regular pathology conferences at Presbyterian-St. Luke's Hospital. Over 90 percent of the 30 to 35 children with heart disease who die annually undergo postmortem examination.

Birth Defects Special Treatment Center

PROTEAU, ROSEANNE, M.D.,
Pediatrician Coordinator
BAAR, KATHERINE, R.N., Nurse
Coordinator

The program in the Birth Defects Special Treatment Center offers complete, comprehensive, and coordinated multidisciplinary care for children with birth defects. Attention is given not only to the medical problems, but also to the complex economic, psychological, and social problems which confront the young patient and his family. The philosophy of the Center is

complete care for the child with any congenital defect, preserving the realization that he is a totally developing individual.

The Center is directed by a full-time pediatrician and nurse-coordinator. The team includes physicians skilled in various medical and surgical specialties, as well as personnel qualified in providing physical and occupational therapy, educational and vocational planning, and all aspects of habilitation and rehabilitation. Facilities, services,

Birth Defects Special Treatment Center. . .

and devices are available as necessary for both the inpatient and the outpatient. Continual evaluation and provisions for long-term follow-up are provided, so that there is a continuity of patient care in all aspects.

The pediatrician coordinates the

planning and implementation of diagnostic testing and evaluation of each patient, and directs and coordinates the functions of the Center's staff in the management of each patient.

Developmental Pediatrics

DAY, DONALD W., M.D., Program Director

The C. Edward Stepan Child Development Center established in the Department of Pediatrics at Rush-Presbyterian-St. Luke's Medical Center provides facilities and services for children with learning disabilities, behavior problems, and abnormal or delayed development of motor, social, or language skills. Patients are accepted on a referral basis from physicians, schools, hospitals, and other institutions which provide care for children.

Patients from birth to 18 years of age are eligible but a range to 12 years is preferred. Patients with the following characteristics are also appropriate for referral: (1) children with neurological defects, such as impaired vision or hearing, brain damage, seizures, or cerebral palsy; (2) children suspected to be mentally handicapped but not definitely classified; (3) underachievers in school settings who appear to be neurologically and mentally normal; (4) children suspected of having moderate to severe emotional disturbances (most of these will be referred after evaluation to child psychology or psychiatry); and (5) children who have physical or intellectual developmental handicaps because of a genetic disease.

The Center offers a com-

prehensive program for diagnostic and therapeutic management for approximately 300 new patients and 1,000 patients annually.

The Center's staff includes a pediatrician as program director, a consultant pediatrician, two associate pediatricians, and consultant clinical psychologists. Consultants to the Center's staff are available in pediatric neurology, electroencephalography, neurosurgery, orthopedic surgery, pediatric allergy, ophthalmology, and otolaryngology. Ancillary specialists are available in speech and hearing (diagnosis and therapy), special education, medical social service, nursing and occupational therapy, and physical therapy.

Medical students, interns, and residents are assigned to the Center as part of the pediatric service rotation. The medical student and pediatric intern receive formal instruction in normal and abnormal growth and development and participate in case discussions under direct supervision of the staff. The resident assumes responsibility, with consultative supervision, for patient evaluation, diagnosis, and treatment. The consultative supervision is provided in the regularly scheduled staffing conferences during which cases are presented.

*Section of Community Pediatrics
Mile Square Health Center*

PUC, FRANK, M.D., M.P.H., Director

The development of the neighborhood health center represents a relatively new approach to comprehensive family-oriented medical care for poverty areas. The Mile

Square Health Center serves a community of 23,000, half of which are in the pediatric age group. The philosophy of the Center is continuous, coordinated, comprehensive care.

All general pediatric care is



*Community Pediatrics
Mile Square Health
Center...*

rendered in the Center. Routine laboratory and radiological services are available on the premises. Patients requiring inpatient or outpatient consultation or special diagnostic services are referred to Presbyterian-St. Luke's Hospital.

A program for the training of Nurse Associates has been functioning since inception of the Center in 1967. Nurse Associates function in the preventive aspect of

the pediatric care and in "pediatric screening." Medical students are offered an opportunity to get an overview of community pediatrics at Mile Square.

All pediatricians working 50 percent or more of their time at the Center are on the staff at Presbyterian-St. Luke's Hospital and have a faculty appointment at Rush Medical College.

*Pediatric Infectious
Disease Program*

REDDI, K.T., M.D., Director

The Pediatric Infectious Disease Program was established to develop programs in infectious diseases within the pediatric setting. Clinical research is related to the study of incidence and types of infectious diseases within the institution. Basic research is involved in the study of the possible etiology of collagen disease, using both Presbyterian-St. Luke's Hospital and the Municipal Contagious

Disease Hospital. Research, daily teaching conferences, and regularly scheduled teaching rounds are conducted by the Director and the Section Chief of Infectious Diseases of the Department of Medicine. A resident is regularly assigned to the Municipal Contagious Disease Hospital for three months of special training. A one-year fellowship training program in pediatric infectious diseases is currently offered.

*Pediatric Psychology
Program*

BROCKEN, CEL, Ph.D., Director

The Pediatric Psychology Program, an integral part of the Department of Pediatrics, was established to develop psychological services and programs within the pediatric milieu. It strives to facilitate maximum collaboration between the medical and behavioral sciences in the comprehensive care of the pediatric patient. Psychological services include developmental evaluations, diagnostic testing, and individual, family, and group psychoeducational disorders. Every effort is made to involve the pediatrician, the family, and the school at every level of diagnosis and psychotherapy.

In addition to the more traditional goal of diagnostic and therapeutic services, programs are being developed for the normal child and adolescent under the

stress of illness and hospitalization. The main objective of these programs is to maximize the total therapeutic aspects of the hospital milieu. These programs are designed to help the patient cope with the psychological demands of illness and hospitalization.

The educational role of the pediatric psychologist at the Medical Center includes developing curriculum and teaching in a number of core and elective courses in Rush Medical College; participating in the Developmental Pediatrics Program for pediatric house staff, which provides weekly conferences for pediatricians at all training levels and a specialty quarter for advanced trainees; and participating in staff development and continuing education programs for pediatric nurses, pediatric nurse associates, and pediatric volunteers.

*Section of Genetics
and Human
Development*

WONG, PAUL W., M.D., Director

The Section of Genetics performs

various genetic studies for inpatients and outpatients—both from Presbyterian-St. Luke's

Hospital and from numerous other hospitals in the Chicago area. Students, residents, and graduate students or professionals who choose to spend time in the Genetics Section learn about the various tests, why they are done, and the procedures used.

The research programs carried on in the laboratories of this Section are varied and are conducted by a number of people with a variety of backgrounds, training, and experience. Those who choose to spend time in the Section may be assigned a project connected with the research going on.

Cooperative research is carried on with several other universities and with other departments, especially Psychology and Immunology. Students, residents, and others may also be assigned to work in these areas, depending on their individual interests and training.

The Genetics Section also welcomes graduate students or professionals on sabbatical leave who wish to spend several months to a year working on a particular

project in our laboratories.

Pediatric residents are welcome to the laboratory for practical experience on how to work on a research problem and how to write a scientific paper. The resident is usually assigned a short-term clinical problem. The resident will have an opportunity to examine babies and children with genetic abnormalities and will see first-hand how the clinical and laboratory diagnoses are made on these patients. The resident will accompany the pediatrician-geneticist when he conducts inpatient consultations and will attend genetic lectures and study the literature to reinforce clinically gained knowledge about genetic abnormalities.

Fourth-year medical students (one at a time) may spend 6-12 weeks on a senior elective in Genetics. The student is assigned to a short-term clinical or laboratory problem and is encouraged to use the scientific literature and to produce a scientific paper.

Department of Preventive Medicine

**SCHOENBERGER, JAMES A., B.S.,
M.D., Chairman**

BONBREST, HELEN C., A.B., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH (also Internal Medicine)

ECKENFELS, EDWARD, M.A., Assistant
Professor, RMC

ELAM, HARRY P., B.S., M.D., Associate
Professor, RMC and Associate Attending,
PSLH (also Pediatrics)

EXUM, DOLORES B., B.A., M.S.W.,
Instructor, RMC (also Psychology and
Social Sciences)

HALL, YOLANDA, M.S., Assistant
Professor, RMC and Assistant Scientist,
PSLH

HUDSON, EDSSEL K., B.S., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH (also Internal Medicine)

JONES, JR., CLAY H., B.A., M.D.,
Assistant Professor, RMC and Senior
Attending, PSLH (also Pediatrics)

KALLICK, CHARLES, B.S., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH (also Pediatrics)

KASSRIEL, ROBERT S., A.B., M.D.,
Instructor, RMC and Assistant Atten-
ding, PSLH

KLINGER, ALFRED D., B.S., M.C.,
Associate, RMC and Senior Attending,
PSLH (also Internal Medicine)

LASHOF, JOYCE C., A.B., M.D.,
Professor, RMC and Senior Attending,
PSLH (also Internal Medicine)

LEPPER, MARK H., B.A., M.D.,
Professor, RMC and Senior Attending,
PSLH (also Internal Medicine)

LEVIN, STUART, B.M., M.D., Associate
Professor, RMC and Senior Attending,
PSLH (also Internal Medicine and
Microbiology)

LEVINE, CHARLOTTE C., B.A., M.D.,
Instructor, RMC and Assistant Atten-
ding, PSLH (also Internal Medicine)

LEVINE, MILTON D., B.A., Sc.D., M.D.,
Professor, RMC and Senior Attending,
PSLH (also Internal Medicine)

McCREARY, PATRICIA A., A.B., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH (also Internal Medicine)

MEYER, JOHN H., M.D., Associate, RMC
and Assistant Attending, PSLH (also
Internal Medicine)

NELSON, KAREN B., A.B., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH (also Pediatrics)

Preventive Medicine. . .

NOBLE, BARBARA W., B.S., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH (also Internal Medicine)
POMERANTZ, RHODA S., A.B., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH (also Internal Medicine)
POST, JOHN, M.D., Visiting Assistant
Professor, RMC and Emeritus, PSLH
(also Internal Medicine)
PROTEAU, ROSEANNE V., A.B., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH (also Pediatrics)
REYNOLDS, ROBERT E., B.A., M.D.,
M.P.H., D.P.H., Professor, RMC and
Senior Attending, PSLH (also Internal
Medicine)
SCHEINER, DAVID L., B.A., M.D.,
Associate Professor, RMC and Assistant
Attending, PSLH (also Internal Medicine)

SCHOENBERGER, JAMES A., B.S.,
M.D., Professor, RMC and Senior
Attending, PSLH (also Internal Medicine)
SCHOENENBERGER, JOSEPH C., B.S.,
M.D., Ph.D., Assistant Professor, RMC
and Assistant Scientist, PSLH (also
Psychology and Social Sciences)
SHEKELLE, RICHARD B., Ph.D.,
Professor, RMC
SPIES, HAROLD W., B.S., M.D.,
Associate Professor, RMC
STEINBERG, HAROLD H., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH (also Internal Medicine)
TURNER, IRENE R., Assistant Professor,
RMC

The Department of Preventive Medicine has as its goal the development of active programs of teaching, research, and planning in the areas of Health Care Delivery, Preventive Practices, Ecology and Epidemiology, and Occupational and Environmental Health.

The Department of Preventive Medicine, although new in 1971, has grown from what was formerly the Section of Community Medicine of the Department of Medicine. Thus the Department already has an active program of research in medical care and the preventive aspects and epidemiology of chronic disease. Under the direction of the Section of Community Medicine the Mile Square Health Center, a neighborhood health center serving a population of 25,000, was developed. Studies on utilization of health services, hospitalization rates, and cost analysis are being carried out within the Center.

The medical director of ANCHOR (a health maintenance organization), as a member of the Department, plays a major role in developing new models for health care delivery. The Department is actively working with the vice president for health care planning in designing an interrelated network of health maintenance organizations, including the total medical care planning for a new city.

The medical director of the Presbyterian-St. Luke's Health Center is also a member of the Department and is also engaged in program planning and evaluation of new forms of delivery of primary health care. The Department currently has a grant in conjunction with the Division of Nursing for the training of Medical Nurse Associates, which includes studies on role function and evaluation of the health care team. A practical application of this new role for nurses is going on in the Hypertension Clinic, where uncomplicated hypertensives are managed by Medical Nurse Associates under the supervision of physicians.

There is ongoing research in the Department in preventive practices and chronic disease epidemiology. A clinical unit of the National Cooperative Study of Coronary Disease, a long-term study of the effect of drugs on mortality of post-myocardial infarct patients, is based in the Department and is now completing its work. In addition, investigation of hypertension in urban, suburban, and rural communities, including evaluation of case-finding methods and long-term management of hypertension, has been carried out.

Two new studies were instituted in 1974. One, the Multiple Risk Factor Intervention Trial (MRFIT) of the NHLI, is a cooperative study

Preventive Medicine . . .

being carried out in 20 centers throughout the United States to test the hypothesis that simultaneous intervention against the three major risk factors will successfully prevent clinical coronary heart disease. The Rush MRFIT Center is located off campus in Oak Brook, Illinois. The other study is the Aspirin Myocardial Infarction Study (AMIS) of the NHLI, a nationwide cooperative study of 30 centers to test the efficacy of aspirin in the prevention of recurrent myocardial infarction.

Two members of this department have been active as consultants to the Milton Olive III Memorial Corporation, a community organization which operated a health research program in Holmes County, Mississippi, under a grant from the National Center for Health Services Research and

Development. The Holmes County Health Project dealt with a broad spectrum of rural health problems as well as a study of migration. The consultants from this department have been most active in the development of a population census and in coordinating the many facets of the program. In addition, they have taken primary responsibility for instituting a community-wide program for the control of hypertension.

Elective experience is available in the Department for any resident interested in furthering his training in health care planning, medical care research, and epidemiology. He may elect to participate in any of the studies or programs described above and/or develop his own research program under supervision.

Section of Biostatistics and Experimental Design

PASSOVOY, MITCHELL, M.A., Director

The Section of Biostatistics and Experimental Design is a research-support facility serving the professional staff of Presbyterian-St. Luke's Hospital. Among the services provided are: (1) consultation in the design and planning of experiments, surveys, and systems of data collection, storage and retrieval; (2) data analysis; and

(3) training programs, consisting of courses in (a) statistical methods in biology and medicine and (b) experimental design.

These services are available to all hospital personnel engaged in basic biological research, clinical research, patient care, and hospital administration.

Department of Psychiatry

FAWCETT, JAN A., M.D., The Stanley G. Harris, Sr., Chairman of Psychiatry

ALEXANDER, HARLAN G., M.D., Instructor, RMC and Assistant Attending, PSLH

ARMSTRONG, CLARESA, M.D., Assistant Professor, RMC and Senior Attending, PSLH

AVERY, LOREN W., M.D., Emeritus, RMC and Senior Attending, PSLH

BARRAL, MYRLINDA, M.D., Instructor, RMC and Adjunct Attending, PSLH

BENEZRA, E. ELLIOT, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

BERGER, JACK C., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

BUCK, DAVID W., M.D., Assistant Professor, RMC and Associate Attending, PSLH

CARLOCK, WILLIAM D., M.D., Instructor, RMC and Assistant Attending, PSLH

CAVANAUGH, JR., JAMES L., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

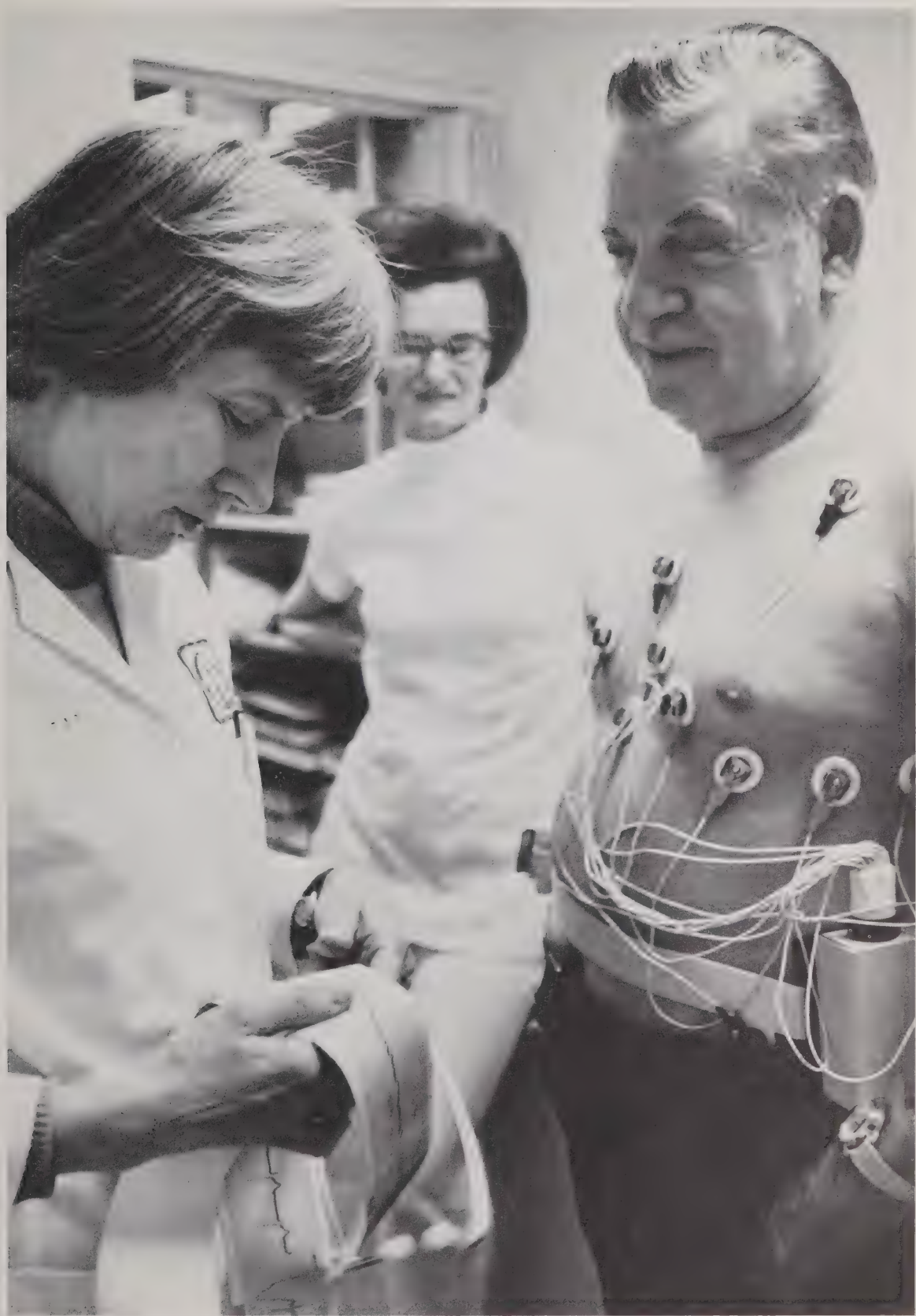
CAVANAUGH, STEPHANIE, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

CHARLES, ANDREW V., M.D., Instructor, RMC and Assistant Attending, PSLH

CHILDRESS, BARRY, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

CHRISTOPOULOS, ANGELOS, M.D., Assistant Professor, RMC and Assistant Attending, PSLH

CLARK, DAVID C., A.B., Instructor, RMC (also Psychology and Social Sciences)



- CUARESMA, LUZ BUNUAN, M.D.,
Instructor, RMC and Adjunct Attending,
PSLH
- DAMPTZ, ROBERT E., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH (also Pediatrics)
- DEDERICK, MARGARIDA M., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH (also Internal Medicine)
- DROM, ROBERT E., M.D., Assistant
Professor, RMC and Associate Attending,
PSLH
- DULIN, THEODORE J., M.D., Assistant
Professor, RMC, MSHMC
- EBENHOEH, PATRICK E., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH
- EPSTEIN, PHILLIP S., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- FAWCETT, JAN A., M.D., Professor,
RMC and Senior Attending, PSLH
- FIRLING, RANDALL J., M.D., Instructor,
RMC and Adjunct Attending, PSLH
- GARVER, DAVID L., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- GARVIN, JOHN S., M.D., Professor, RMC
and Senior Attending, PSLH (also
Neurological Sciences)
- GERTY, FRANCIS J., M.D., Emeritus,
RMC and Consultant, PSLH
- GILBERT, KENNETH, M.D., Assistant,
RMC and Adjunct Attending, PSLH
- GUISE, GRACIA, M.S., Associate, RMC
and Assistant Scientist, PSLH (also
Psychology and Social Sciences)
- GWYER, FRED V., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- HAKIMI, YOSEF, M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- HALPER, IRA S., M.D., Assistant
Professor, RMC and Associate Attending,
PSLH
- HANNI, JOHN W., M.D., Professor, RMC
and Senior Attending, PSLH
- HOVDE, CHRISTIAN A., Ph.D., Visiting
Assistant Professor, RMC and
Consultant, PSLH
- JONES, FRANK D., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- KATZ, JEROME I., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- KEMPTON, LEO V., M.D., Assistant
Professor, RMC and Associate Attending,
PSLH
- KOENIG, RICHARD C., M.D., Assistant
Professor, RMC and Associate Attending,
PSLH
- KUHL, DOROTHY L., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- LANE, HAROLD J., M.D., Instructor,
RMC and Assistant Attending, PSLH
- LANGNER, HERMAN P., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH
- LEFF, JOEL, M.D., Instructor, RMC and
Adjunct Attending, PSLH
- LIPOFF, DENNIS, Ph.D., Assistant
Professor, RMC and Adjunct Scientist,
PSLH (also Psychology and Social
Sciences)
- MANGOUBI, ELIE, M.D., Instructor,
RMC and Assistant Attending, PSLH
- MASON, NORMA, M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- McMILLAN, ROBERT G., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH
- MEEHAN, MARJORIE C., M.D.,
Assistant Professor, RMC and Emeritus,
PSLH
- MILLER, RAYMOND N., M.D., Assistant
Professor, RMC and Associate Attending,
PSLH
- MOHAJAR, MORTEZA, M.D., Assistant,
RMC and Adjunct Attending, PSLH
- NAVARRO, MERCEDES, M.D.,
Associate, RMC and Adjunct Attending,
PSLH
- NORTON, ARTHUR H., M.D., Associate
Professor, RMC and Senior Attending,
PSLH
- O'DONNELL, JOHN W., M.D., Associate,
RMC and Assistant Attending, PSLH
- ORLOFF, MOLLIE, M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- PATTERSON, JOAN E., M.D., Assistant
Professor, RMC, MSHMC
- PEDEMONTE, LILIANA M., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH
- PERKINS, GEORGE, M.D., Assistant
Professor, RMC and Consultant, PSLH
- PIEPER, WILLIAM J., M.D., Assistant
Professor, RMC and Associate Attending,
PSLH
- PISANI, VINCENT, Ph.D., Assistant
Professor, RMC and Associate Scientist,
PSLH (also Psychology and Social
Sciences)
- PROSEN, MELVIN, M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
- PSARRAS, GEORGETTE M., Ph.D.,
Assistant Professor, RMC and Assistant
Scientist, PSLH (also Psychology and
Social Sciences)
- ROSENTHAL, MAURICE J., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH
- SABLE, ARTHUR D., M.D., Assistant
Professor, RMC and Associate Attending,
PSLH
- SCHWARZ, MARVIN, M.D., Assistant
Professor, RMC and Associate Attending,
PSLH
- SMITH, GARTH D., M.D., Assistant
Professor, RMC and Associate Attending,
PSLH

Psychiatry . . .

SOLOMON, ALFRED P., M.D., Professor, RMC and Senior Attending, PSLH
 STEED, DAVID W., M.D., Associate Professor, RMC and Senior Attending, PSLH
 STEIN, EDWARD, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 TRAGER, EUGENE P., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 TRAKAS, DEMETRIUS A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 TURK, CHARLES E., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 URSE, VLADIMIR G., M.D., Professor, RMC and Senior Attending, PSLH

WATSON, LAURA, M.A., Instructor, RMC and Adjunct Scientist, PSLH (also Psychology and Social Sciences)
 WEINBERG, JACK, M.D., Professor, RMC and Senior Attending, PSLH
 WEISNER, RONALD, M.D., Assistant, RMC and Adjunct Attending, PSLH
 WEST, JAMES, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 WOLF, MARION E., M.D., Associate, RMC and Associate Attending, PSLH
 WOLFF, JOHN, M.D., Professor, RMC and Consultant, PSLH (also Obstetrics and Gynecology)
 WRIGHT, DONOVAN G., M.D., Professor, RMC and Senior Attending, PSLH
 YANG, HAYNG-SUNG, M.D., Assistant, RMC and Adjunct Attending, PSLH

A fully accredited three-year program provides the eclectic, intensive experience necessary for the practice of modern comprehensive psychiatry. Training in psychodynamic orientation is integrated with psychopharmacologic, family, and community intervention. Research and teaching opportunities are encouraged where appropriate to the resident's development.

The Marshall Field IV Center is the administrative base of the Department, and houses the Adult and Child Outpatient Psychiatric Clinic, the Adult and Children's Day Hospital, the Outpatient Alcoholic Program, seminar rooms, and residents' offices. This physical contiguity exemplifies the continuity of the training program, providing access to multiple resources for clinical care and education.


A modern psychiatric unit of 31 beds is an integral part of Presbyterian-St. Luke's Hospital. An Adult General Psychiatric Inpatient Unit of 31 beds, as well as an Adolescent Unit and an Alcohol Treatment Unit, are in operation in the Department at the Sheridan Road Pavilion at 6130 North Sheridan Road. Each unit is under

supervision of a clinical director responsible for the quality of patient care, education, and research.

The Consultation Service provides a broad range of liaison experience as well as specialized elective rotations.

The resident begins his training with intensively supervised inpatient study. First-year seminars focus on fundamentals of patient interviewing and evaluation, diagnosis of psychopathology and patient management, and psychotherapeutic and somatic therapy modalities. Second- and third-year residents are encouraged to pursue their individual talents while acquiring basic skills in outpatient diagnosis and therapy, family and marital therapy, and child and adolescent psychiatry. In these various subdisciplines, seminar work coordinates with clinical experience and individual supervisory sessions. For residents interested in formal psychoanalytic training, the Chicago Institute for Psychoanalysis is available to candidates when appropriate.

Applications should be made to Melvin Prosen, M.D., Director of Psychiatry Residency Training.



Surgical Sciences and Services

L. Penfield Faber, M.D.

Associate Dean
for Surgical Sciences and Services
and Assistant Vice President

for Medical Affairs

Departments

The Division of Surgical Sciences and Services contains the Departments of General Surgery, Cardiovascular-Thoracic Surgery, Neurosurgery, Ophthalmology, Orthopedics, Otolaryngology and Bronchoesophagology, Plastic Surgery, Urology, Diagnostic Radiology, Therapeutic Radiology, Obstetrics and Gynecology, and Pathology. All appointments to these departments and their subsections as described below are made through the National Intern and Resident Matching Program. All entering postgraduate students spend at least their first year on the General Surgical Service before

progressing to their area of specialty training, with the exception of students of Diagnostic and Therapeutic Radiology, who spend six months in General Surgery and six months in Internal Medicine, and postgraduate students in the Obstetrics and Gynecology and Pathology programs.

In addition to the above programs, Rush-Presbyterian-St. Luke's Medical Center offers a limited number of one- to two-year surgical appointments directed to those students who have not decided on their professional careers.

Department of General Surgery

SOUTHWICK, HARRY W., A.B., M.D.,
Chairman

BANICH, TERENCE G., B.S., M.S.,
M.D., Instructor, RMC and Adjunct
Attending, PSLH

CALDWELL, RICHARD G., A.B., M.S.,
M.D., Assistant Professor, RMC and
Associate Attending, PSLH

COLE, WARREN H., M.D., Emeritus,
RMC and Emeritus, PSLH

DAVIS, JR., CARL B., A.B., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH

dePEYSTER, FREDERIC A., A.B., M.D.,
Professor, RMC and Senior Attending,
PSLH

DIFFENBAUGH, WILLIS G., B.S., M.D.,
Emeritus, RMC and Senior Attending,
PSLH

DOOLAS, ALEXANDER, B.S., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH

ECONOMOU, STEVEN G., B.A., M.D.,
Professor, RMC and Senior Attending,
PSLH

FELL, EGBERT, M.D., Emeritus, RMC
and Emeritus, PSLH

GILCHRIST, R. KENNEDY, B.S., M.D.,
Emeritus, RMC and Emeritus, PSLH

GRACZ, KENNETH C., B.S., M.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

GUYNN, VERNON L., B.S., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH

HABEGGER, LOREN J., B.E., M.E.,
Ph.D., Instructor, RMC

HALEY, RONALD G., B.S., M.S., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

HANSELMAN, RUSSELL C., A.B., M.D.,
Emeritus, RMC and Senior Attending,
PSLH

HOLMBALD, EDWARD C., M.D.,
Emeritus, RMC and Emeritus, PSLH

JAMIESON, ROBERT W., P.H.B., M.S.,
M.D., Associate Professor, RMC and
Senior Attending, PSLH

JOHNSON, FRANK R., S.B., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH (also Pediatrics)
KAPUSTA, GEORGE R., B.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

LAWTON, STANLEY, M.D., Emeritus,
RMC and Emeritus, PSLH

LEVINGER, LAURENCE W., B.A.,
M.D., Instructor, RMC and Adjunct
Attending, PSLH (L.O.A.)

McDONALD, GERALD, M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH

McDONALD, OWEN G., B.S., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH

McMILLIAN, FOSTER L., B.S., M.D.,
Emeritus, RMC and Emeritus, PSLH

MERKEL, FREDERICK K., B.S., M.S.,
Associate Professor, RMC and Associate
Attending, PSLH (also Internal Medicine)

MEYER, HAROLD I., M.D., Emeritus,
RMC and Emeritus, PSLH

OLWIN, JOHN H., A.B., M.D., Emeritus,
RMC and Emeritus, PSLH

OVERSTREET, ROBERT J., B.S., M.S.,
M.D., Assistant Professor, RMC and
Associate Attending, PSLH

PAUL, HAROLD A., B.S., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH

POEPEL, ROGER B., B.D., Ph.D.,
Instructor, RMC

POMERANTZ, MARC A., B.A., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

RADWAY, PAUL R., B.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

RASMUSSEN, ALFRED, M.D., Emeritus,
RMC and Emeritus, PSLH

General Surgery . . .

REYNOLDS, JOHN T., B.S., M.S., M.D.,
Professor, RMC and Senior Attending,
PSLH
ROSEMAN, DAVID L., B.S., M.S., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH
SALOMON, JACOB, B.S., M.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH
SCHMIDTKE, WENDELL H., B.S., M.S.,
M.D., Assistant Professor, RMC and
Assistant Attending, PSLH
SHAPIRO, THOMAS M., B.A., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

SHOREY, WILLIAM B., M.D., Associate
Professor, RMC and Senior Attending,
PSLH
SOUTHWICK, HARRY W., A.B., M.D.,
Professor, RMC and Senior Attending,
PSLH
STRAUS, ALBERT K., A.B., M.S., M.D.,
Ph.D., Assistant Professor, RMC and
Assistant Attending, PSLH
STRAUS, FRANCIS H., B.S., M.D.,
Emeritus, RMC and Emeritus, PSLH
WITKOWSKI, LEON J., B.S., M.S.,
M.D., Emeritus, RMC and Emeritus,
PSLH

Optimal surgical care is best rendered to patients by a surgical staff that is not only of the highest caliber, but that is well balanced in all of its various departments. A staff so composed provides a rich opportunity for the trainee, whether resident or fellow, to obtain a well-rounded and appropriately progressive education, both in basic surgery and in the disciplines of specialty surgery. The Department of General Surgery has and accepts the broadest responsibility for training within this environment. The Department of General Surgery at Rush-Presbyterian-St. Luke's Medical Center includes the Section of Transplantation and the Section of Pediatric Surgery. These sections, however, are assigned to one of the General Surgery services.

There are four General Surgery services, each supervised by a chief of service who is a senior member of the attending staff. Service I incorporates the Section of Transplantation, Service II the Section of Pediatric Surgery. Each of the services have a balance of patient load, although there is some disproportion as to the number of attending surgeons varying with the volume of the individual's private practice. Informal rounds are held daily with members of the attending staff, and formal teaching rounds take place at least once a week, generally twice a week, at specific scheduled times. There are numerous conferences held each week. Basic science information is

incorporated in the general clinical programs at these conferences through participation of the various members of the Basic Science Faculty of the Medical College. The pathologic, biochemical, and physiologic processes involved in the particular topics of cases for discussion are carefully integrated into the total review of the subject for the day. In addition, there is a surgical Basic Science Conference held weekly on Saturday mornings. A carefully planned program, covering basic science as it relates to general surgery, is presented at these conferences, with an over-all plan of a two-year rotation to complete the entire cycle. Some subjects are covered twice in the course of two years, such as acid-base balance and fluid electrolytes, while some subjects, such as immunology and chemotherapy, are covered only once in two years. Once a month, the Surgical Basic Science Conference is devoted to surgical pathology; this session is moderated by the Chairman of the Department of General Surgery.

First Year of Residency: Appointments to the first year of training in General Surgery are primarily categorical, although an additional categorical appointment is available for an individual who has an appointment elsewhere in a surgical specialty or a Family Practice residency. Trainees from the surgical specialties within the institution, including Orthopedic Surgery, Urology, Neurosurgery,

General Surgery . . .

Otolaryngology, Plastic Surgery, and Ophthalmology, rotate through the General Surgery services in a manner similar to the General Surgery trainee in this first year of postgraduate training. There are four General Surgery services in the hospital, and six months is spent in two-month rotations on three of the different services. One month is spent in Cardiovascular Surgery, one month in Thoracic Surgery, and one month in the Surgical Intensive Care Unit. Three months remain for elective rotations through the surgical specialties, including Orthopedic Surgery, Urology, Neurosurgery, Otolaryngology, Plastic Surgery, and Anesthesiology.

Second Year of Residency: The house officers continue their training as part of the categorical program in the second year, although all appointments are subject to annual review. The second year of residency is, in reality, the completion of the core training program in basic surgery. No matter what the goals of the individual resident may be with respect to training beyond General Surgery, all are assigned on a similar-type rotation with the expectation of a similar performance. Generally, six months are spent in General Surgery and six months are spent on specialty services, although the specialty rotations are for two months during the second year of residency. One two-month rotation during the R2 year is spent on rotation to the Orthopedic Service at Christ Hospital, where there is an opportunity for exposure to acute fractures and the management of more common orthopedic problems than are encountered in the Medical Center.

The second-year resident is buttressed on one side by the first-year trainee and the medical students assigned to his service, who he must begin to guide and

teach, and on the other side by the senior residents and attending surgeons to whom his progress is a primary responsibility. He performs surgery under the supervision of an attending surgeon or senior resident with staff privileges, with equal emphasis on surgical principles and correct operative techniques. The variety and complexity of the operations he performs increases commensurate with his demonstrated ability. The first two years of the residency program are considered of great significance, because during this time a strong basic foundation is laid which can afford the background for a rewarding continuation of residency training and a lifetime of professional activity.

Third Year of Residency: The assignments during the third year of residency are more flexible than those during the first two years. Residents who have an inclination to develop and explore a basic research project are strongly encouraged to do so. However, all house officers are expected to begin work on a basic or clinical research project at this time. Residents not assigned to the laboratory will again rotate through various clinical services. It is felt that the entire year need not, necessarily, be spent in the research laboratory; this is particularly true if the background of the project is developed prior to devoting full time during the third year. A variety of elective rotations are available for six months or two three-month rotations, either in other departments within the institution or in acceptable programs elsewhere.

Exposure to a basic research experience at this stage fulfills several essential requisites to continued maturation in the science of surgery. The resident already has spent two clinical years and is in a position to have formulated questions to which an-



swers may lie in the laboratory. Designing and executing an experiment to pursue such problems rewards him with the ability to evaluate, more intelligently, the information thrust upon him in the surgical literature. This only can result in a better clinical surgeon. The research rotation also crystallizes in the mind of the house officer the degree to which he may choose to include laboratory or clinical research in his ultimate career. Certain course work is available for the trainee during this third year which, combined with a thesis based on the trainee's project, may complete the qualifications for consideration of a Master's Degree in Surgery.

Each resident is given several options in the selection and execution of surgical experiments. He may choose to participate in an ongoing project where he would be responsible for one facet of a broad subject. On the other hand, the resident may work alone on a project of his own choosing or be assigned to a project by the Director of Surgical Research. It is expected, during this year, that the resident will attend the various departmental conferences whenever possible, and it is mandatory that he attend the weekly surgical seminars held under the sponsorship of the Research Director. There is a monthly Departmental Research Conference where more formal presentations are made, both by house officers in the basic research experience and by those working on clinical research projects.

Fourth Year of Residency: The fourth year is one of full clinical activity, with the resident assuming an increasing proportion of the responsibility for the management of patients on the service to which he is assigned. He is, in a way, the executive assistant of the senior resident and is expected to be fully cognizant of the exact status of all patients on the service. Six months

of the year are spent on General Surgery services, the remainder in two three-month specialty rotations.

The elective rotations assigned should be in areas not previously covered in any depth, particularly by those who undertook a series of clinical rotations in the third year of training. It should be noted that these rotations may take place in the Medical Center or its affiliated hospitals or, occasionally, in other hospitals approved by the Chairman of the Department. During this year, most of the trainees rotate through one of the affiliated hospitals as the senior General Surgical Resident in that hospital at that time. This affords the trainee an opportunity to see a larger volume of more common surgical problems than are seen in the largely tertiary care Medical Center.

Fifth Year of Residency: Fifth-year residents spend the entire year as the senior trainee on one of the four General Surgery services or on the Peripheral Vascular Service. In each instance, they are charged with the ultimate responsibility for the satisfactory deliverance of appropriate duties to their subordinates while, at the same time, being fully knowledgeable of all matters pertaining to the care of the surgical patients.

Health Center patients are admitted to all of the General Surgery services. The senior resident cares for these patients under the supervision of an attending surgeon, either with his assistance in the operating room or with the assistance of one of the junior residents on the service. Emergency Health Center admissions are assigned to the service of the senior resident on call for that particular day, and he is responsible for their care while they are hospitalized, under the supervision of the Chief of the service. One morning per week is

General Surgery...

Section of Pediatric Surgery

devoted to the Health Center Surgery Clinic, where new patients are seen and follow-up visits on

JOHNSON, FRANK R., M.D., Director

The care of infants, children, and adolescents with congenital and acquired problems requiring surgical care has undergone great change in recent years. The rotation of surgical residents through the Pediatric Surgical Service brings them into contact with these problems, under supervision of an attending pediatric surgeon and in association with attending pediatricians and the pediatric house staff. Rounds are made several times a week in the newborn and neonatal nursery, where among the 3,000 deliveries yearly there are congenital problems amenable to surgical treatment. In addition, with the development of the Neonatal Center for high-risk infants, it is anticipated that there will be an increase in numbers of these patients hospitalized. Daily rounds are made on pediatric surgical patients on the wards for infants, children, and adolescents. Outpatient clinics twice weekly, with an average census of 15-20 patients each clinic day, offer the staff ample opportunity to

previously hospitalized patients from the service are carried out.

examine, diagnose, and prepare patients for elective surgical care and to follow patients treated in the Emergency Room on an ambulatory basis. Two days a week are set aside for elective surgery, where the resident has an opportunity to assist and observe surgical treatment as a member of the operating team. Often he is first assistant to the senior resident or attending surgeon, and, depending on his interest and ability, he may operate with the assistance of the senior resident or attending surgeon. The first-year resident is primarily responsible for the pre- and postoperative care of the patients on his service and under the guidance and supervision of his senior resident presents his patients on daily ward rounds to the attending surgeon for additional consultation. The Emergency Room is a constant source of patients presenting problems resulting from burns, blunt and penetrating trauma, and the acute abdominal problems of appendicitis, Meckel's diverticulitis, intussusception, and other acute pediatric surgical disorders.

Section of Transplantation

MERKEL, FREDERICK K., M.D., Director

The Section of Transplantation offers experience in both the clinical and research aspects of organ transplantation. The clinical service is a part of one of the four General Surgery services. The organ procurement and preservation program is one of the most active in the country; this past year, 104 kidneys were procured by this Section and 72 kidneys were preserved for transplantation. Also during this year, more than 212 operations were carried out on transplant and dialysis patients on this service. Procedures were not

limited to kidney transplantation, but included the many varied operative procedures necessary to prepare the patients for transplantation, such as nephrectomy, splenectomy, and vascular access. The surgical house staff assists with or carries out these procedures under the supervision of the transplant surgeons. Daily rounds are made on these patients and a daily Renal/Transplant Conference is held in conjunction with the nephrologists. An outpatient clinic is held weekly preoperative, and postoperative care for transplant recipients is carried out in conjunction with the Nephrology

Department of Cardiovascular-Thoracic Surgery

Service. Although the principal emphasis of this Section has been on kidney transplantation, one pancreas transplant has been accomplished and programs are underway to continue pancreatic transplantation and to initiate liver transplantation.

Active research is being carried

out in organ perfusion preservation for those interested in a research experience. The surgical procedures performed on experimental animals are done in the animal resources facility, and the preservation studies are carried out in the Preservation Laboratory.

NAJAFI, HASSAN, M.S., M.D., Chairman

Section of Cardiovascular Surgery:

DeTAKATS, GEZA, B.A., M.S., M.D., Emeritus, RMC and Consultant, PSLH
 DYE, JR., WILLIAM S., A.B., B.S., M.D., Professor, RMC and Senior Attending, PSLH
 GOLDIN, MARSHALL D., M.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 HUNTER, JAMES A., B.S., M.D., Professor, RMC and Senior Attending, PSLH
 JAVID, HUSHANG, B.S., M.S., M.D., Ph.D., Professor, RMC and Senior Attending, PSLH
 JULIAN, ORMAND C., B.S., M.D., Ph.D., Professor, RMC and Senior Attending, PSLH
 MONSON, DAVID O., B.S., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 NAJAFI, HASSAN, M.S., M.D., Professor, RMC and Senior Attending, PSLH
 SERRY, CYRUS, M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 WEINBERG, JR., MILTON, M.D., Associate Professor, RMC and Senior Attending, PSLH

The Department consists of two sections, Cardiovascular Surgery and Thoracic Surgery, having separate patient care functions but a strong combination of purpose in the training program. General surgical residents are given opportunities in depth in both areas during rotation through the clinical services.

Senior responsibilities are assumed by the cardiovascular-thoracic fellows in the Department. Completion of an approved general surgical residency is a prerequisite for consideration. Applications should be made not less than 18

Section of Thoracic Surgery:

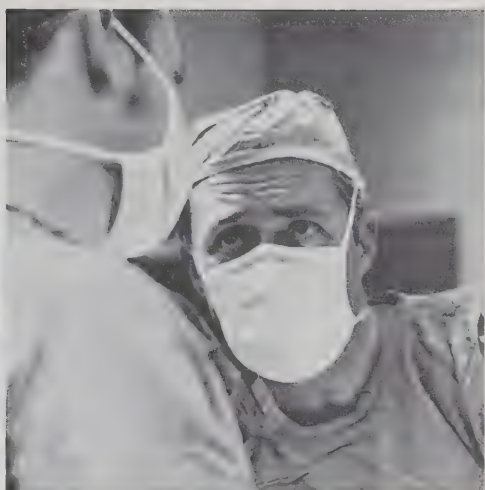
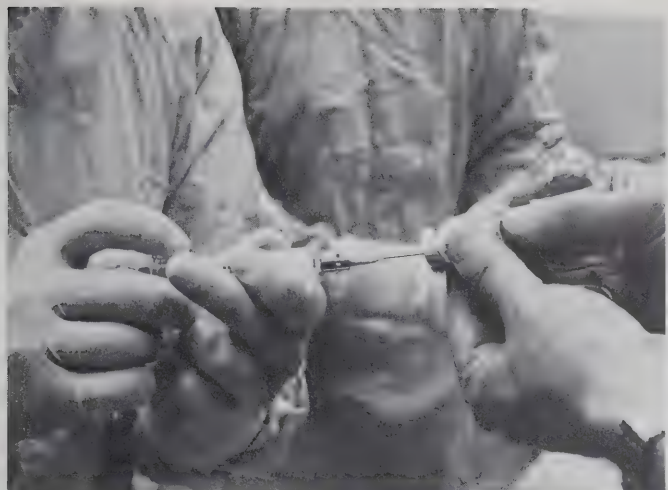
FABER, L. PENFIELD, B.A., M.D., Professor, RMC and Senior Attending, PSLH
 JENSIK, ROBERT J., B.S., M.S., M.D., Professor, RMC and Senior Attending, PSLH
 KITTLE, C. FREDERICK, B.A., M.S., M.D., Professor, RMC and Senior Attending, PSLH
 LANGSTON, HIRAM T., B.A., M.S., M.D., Visiting Professor, RMC and Consultant, PSLH
 MILLOY, FRANK J., M.S., M.D., Associate Professor, RMC and Associate Attending, PSLH

Fellows:

DELARIA, GIACOMO ANTHONY, B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
 DePINTO, DONALD, B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
 PEDRAZA, PABLO, B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH
 SHEPHERD, RICHARD L., B.A., M.D., Instructor, RMC and Adjunct Attending, PSLH
 SHUMAN, ROBERT L., B.S., M.D., Instructor, RMC and Adjunct Attending, PSLH

months prior to the desired starting date. Two residents are appointed each year, either on January 1 or, more commonly, July 1. The conventional program makes the applicant eligible for examination by the American Board of Thoracic Surgery.

The duration of training varies from 24 to 36 months, the most common being 30 months. Residents who spend a minimum of two years receive one year of clinical training in each section; ordinarily the additional six to 12 months are spent in the Cardiorespiratory Laboratory of the



Cardiovascular- Thoracic Surgery...

Department of Medicine, the Surgical Intensive Care Unit, cardiovascular surgical research, or various combinations, such as three months at Children's Memorial Hospital in Chicago and in the Department of Diagnostic Radiology. Many residents begin the program in the Cardiac Catheterization and Pulmonary Function laboratories, where the fundamentals of cardiac catheterization and angiography are stressed. Increasing responsibility in the performance of the various procedures is assigned appropriately as experience progresses. At the completion of this rotation the resident is able to judge which diagnostic procedure is necessary, perform it with assistance, and then interpret the results. During this period time is made available to learn electrocardiographic diagnosis, the essentials of electrocardioversion, and the operation of standard electronic monitoring equipment. Time is also allotted to the study and review of respiratory physiology through laboratory and clinical pulmonary function studies. Bedside teaching of cardiac diagnosis in adults and children is conducted during daily ward rounds. The candidate has assigned to him certain patients selected for study by the Director of the Laboratory. He is then responsible for the preprocedural work-up and presentation of such patients, following them throughout their hospital course. This rotation is usually two months in duration.

During an elective period of six to 12 months, the candidate is given the opportunity of spending three months at Children's Memorial Hospital, which is an affiliate of Northwestern University School of Medicine, where he will be given senior responsibility in the care of patients. A majority of these patients have congenital cardiac anomalies requiring surgical treatment. An appreciable amount of independent surgical experience

is gained during this rotation. On occasion, a resident is assigned to the 19-bed Surgical Intensive Care Unit, which mostly is utilized by patients with major cardiovascular and thoracic surgical problems. The Intensive Care Unit is directed by a member of the Section of Cardiovascular Surgery, who spends several hours per day in that Unit providing excellent bedside teaching opportunities. Two interns from Medicine, one from Surgery, and students on their electives stimulate the assigned resident to participate in teaching. This rotation provides the possibility for a resident to engage in clinical review or investigation which may lead to publication. Many residents are assigned for one month to Diagnostic Radiology, where, under the direction of two radiologists with primary interest in peripheral angiography, the principles of arteriography are taught.

If the resident extends his training to three years, he will have six additional months during which he can engage in ongoing investigative work in the cardiovascular surgical research laboratory. After six to 12 months of such an elective rotation, he then spends two successive years in the two sections. The first clinical year is spent in the Section of Thoracic Surgery, which is devoted exclusively to pulmonary and esophageal surgery with abundant endoscopic experience.

In addition to daily rounds and operative surgery, there is a weekly formal cardiovascular-thoracic conference where cases of interest are presented by several participating institutions across the city and suburbs. Time is allotted for the teaching of diagnostic thoracic radiology and pathology by informal instruction and regularly scheduled conferences. A monthly session provides an opportunity for the residents to meet invited visiting professors. Residents are encouraged to submit

Cardiovascular- Thoracic Surgery...

papers for presentation to national societies, with their expenses incurred by the institution. In addition, each resident during his period of training will be sent to one of the national meetings of the Society of Thoracic Surgeons or the American Association for Thoracic Surgery.

The final rotation consists of 12 months on the Section of Cardiovascular Surgery. The resident is junior for the first six months, during which time the majority of his operative experience is in arterial surgery, the surgery of portal hypertension, and closed cardiac operations. The final six months as senior resident provide for training in and the performance of open-heart surgery with a continued effort in peripheral vascular surgery.

The two sections operate in four rooms, five days each week for scheduled cases. Each week 15 open-heart procedures are performed. Abdominal aneurysmectomy, aortic bifurcation grafting, carotid endarterectomy, and femoral-popliteal bypass make almost daily appearances on the schedule. Pacemaker implantation, surgery for portal and renal hypertension, ductus and coarctation repair, and closed mitral commissurotomy occur with some regularity. Frequent pulmonary and esophageal procedures include pneumonectomy, segmentectomy, decortication, lobectomy, esophagogastric resection, bronchoplasty or sleeve resection, and endoscopic procedures of all types. Total cases average approximately 180 per month, with the resident staff

performing all types. During the training period each candidate moves through the operating team from first assistant to assuming operative responsibility as various techniques are mastered. Daily rounds are conducted by attending physicians and provide excellent training in bedside clinical diagnosis. The senior resident assumes responsibility for the weekly cardiovascular thoracic conference, the precise tabulation of monthly morbidity and mortality, the daily surgical scheduling, and the disposition of service personnel for routine activities. Commensurate with his ability, he assumes full responsibility for the preoperative work-up and postoperative care of all patients and for the proper administration of the service.

Within the Department, there are several programs readily available to interested residents. These include a cardiac assist program, including utilization of intro-aortic balloon pumping directed by a member of the Section of Cardiovascular Surgery, the extracorporeal circulation program, and the cardiovascular surgical research laboratory. If the resident chooses to spend one year in this laboratory prior to his clinical education, he will be given the opportunity to acquire a Master's Degree in Surgery during this period.

A senior member of the Department has been made Director of Medical Education; this assures careful evaluation and promotion of activities directed at the education of the trainees.

Department of Neurological Surgery

**WHISLER, WALTER W., M.D., Ph.D.,
Chairman**

D'ANGELO, CHARLES M., B.A., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

OLDBERG, ERIC, B.S., M.D., Ph.D.,
Emeritus, RMC and Emeritus, PSLH

PENN, RICHARD D., B.A., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

SELBY, ROY, B.S., M.D., Visiting
Associate Professor, RMC and Con-
sultant, PSLH

SUGAR, OSCAR, M.D., Visiting
Professor, RMC and Consultant, PSLH

Neurological Surgery . . .

VORIS, HAROLD C., M.D., Ph.D.,
Emeritus, RMC and Emeritus, PSLH

The Department of Neurological Surgery offers a six-year post-M.D. training program approved by the American Board of Neurological Surgery. During the first year, time is spent on rotation through general surgery and other surgical departments to develop a broad knowledge of the surgical arts and sciences. The second year is spent in clinical neurosurgery, with emphasis on diagnosis and diagnostic neuroradiology. In the third year, there is a six-month rotation in neurology and six months in neuropathology. The fourth year is set aside for research or electives, and the last two years are in clinical neurosurgery. Rotations often can be modified to accommodate special interests. The clinical aspects of the program are organized around the principle of progressively graded responsibility with appropriate supervision.

The program is designed to present the basic neurological sciences as well as the practical aspects of neurosurgery. During the year, the resident will attend

WHISLER, WALTER W., M.D., Ph.D.,
Professor, RMC and Senior Attending,
PSLH (also Neurological Sciences)

neurology and neurosurgery grand rounds, brain cutting seminars, neurosurgical topic seminars, and the basic neuroscience course (neuroanatomy, neurophysiology, and neurochemistry).

Primary among the strengths of the Department of Neurosurgery is the broad variety of clinical problems which are studied and managed and the utilization of all of the modern neurosurgical techniques available. Besides general cranial, spinal, and pediatric neurosurgery, many microsurgical and stereotaxic procedures are performed. An active program is also maintained for the medical treatment of malignant brain tumors. The research facilities in the Department of Neurosurgery include a tissue culture laboratory, several highly specialized neurochemistry laboratories, a general biochemistry laboratory, and a neurophysiology laboratory for stereotaxic and microsurgical work.

Department of Ophthalmology

HUGHES, WILLIAM F., M.D., Acting
Chairman

BROWN, DAVID V. L., B.S., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH

DEUTSCH, EMIL, M.D., Emeritus, RMC
and Emeritus, PSLH

GAMBLE, RICHARD C., M.D., Emeritus,
RMC and Emeritus, PSLH

HAAS, JOSEPH S., B.A., M.S., M.D.,
Professor, RMC and Senior Attending,
PSLH

HUGHES, WILLIAM F., A.B., M.D.,
Professor, RMC and Senior Attending,
PSLH

KAPLAN, JOEL, B.A., M.S., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH

LEE, CHANG-BOK, B.S., M.D.,
Instructor, RMC and Assistant Atten-
ding, PSLH

LEECH, VERNON M., M.D., Emeritus,
RMC and Emeritus, PSLH

LEWICKY, ANDREW O., B.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

MONCREIFF, WILLIAM P., B.S., M.S.,
M.D., Emeritus, RMC and Emeritus,
PSLH

NOOTENS, RAYMOND H., B.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

NOWICKI, NORBERT J., B.S., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH

PUSHKIN, EDWARD A., B.S., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH

RADVILA, IZOLDA M., M.D., Instructor,
RMC and Adjunct Attending, PSLH

ROBBIN, DAVID S., B.S., M.D.,
Instructor, RMC and Assistant Atten-
ding, PSLH

SCHERIBEL, KARL, B.S., M.D.,
Emeritus, RMC and Emeritus, PSLH

SPIRO, BARBARA, M.D., Associate
Professor, RMC and Assistant Attending,
PSLH



Ophthalmology...

The residency training program in Ophthalmology is approved by the Residency Review Committee of the American Medical Association and the American Board of Ophthalmology. Applications are rarely accepted from those who have completed a general internship; most residents enter a combined pre-ophthalmological internship of one year in the Department of General Surgery of Rush-Presbyterian-St. Luke's Medical Center followed by a residency in Ophthalmology for three years. This is a three-year program, two years of which are spent at Presbyterian-St. Luke's Hospital and one year which includes a full-time postgraduate course of three to five months that can be taken any time during the first two years at any recognized institution or the Lancaster Course; tuition fees, allowance for books, and regular resident's stipend are provided by the hospital. Some individuals take an additional six months on a research fellowship.

The teaching program is built around the initial examination, treatment, and follow-up of patients from the beginning of training rather than a pyramidal system of graduated responsibilities ending in a final period of surgery. Health Center patients are the direct responsibility of the residents, under close supervision of the attending staff, and there are approximately 3,500 outpatient visits per year. The rate of development of surgical technique by the resident depends on his level

of competence; extraocular procedures are performed soon after beginning the residency and intraocular procedures after six to 12 months. The average resident performs approximately 100-150 major procedures during his three years of training. Other responsibilities of the resident include consultations with other departments and the admission examination of private patients, with active participation in any surgical procedure. Residents are assigned for six-month rotations to groups of two or three attending ophthalmologists in order to provide better rapport and follow-up of patients.

Formal teaching rounds on Health Center patients are held once a week. A weekly conference discusses a variety of subjects: journals, reports by staff or residents who have attended a scientific meeting elsewhere, and systematic coverage of important subjects or the American Academy Course in Continuing Education. Regular and special conferences at the University of Illinois Eye and Ear Infirmary are available. Grand Rounds in neurology, pediatrics, surgery, and medicine are attended if the subject is of ophthalmologic interest. Surgical specimens prepared in the Eye Pathology Laboratory are reviewed by the residents and discussed with attending staff. Each resident is urged to participate in either a clinical or laboratory project.

Department of Orthopedic Surgery

GALANTE, JORGE O., M.D., Chairman
ANDRIACCHI, THOMAS PETER, Ph.D.,
Assistant Professor, RMC and Assistant
Scientist, PSLH (also Biomedical
Engineering)
DeWALD, RONALD L., B.S., M.D.,
Professor, RMC and Senior Attending,
PSLH
GALANTE, JORGE O., B.A., M.D.,
D.M.Sc., Professor, RMC and Senior
Attending, PSLH
HARK, FRED W., M.D., Emeritus, RMC
and Emeritus, PSLH

HARK, WILLIAM A., B.A., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH
HECK, CHARLES V., B.S., M.D., Clinical
Professor, RMC and Consultant, PSLH
HEJNA, WILLIAM F., B.A., M.D.,
Professor, RMC and Senior Attending,
PSLH
HOWARD, FRANCIS M., B.A., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH

Orthopedic Surgery...

KUO, KEN, B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 LAMBERT, CLAUDE N., A.B., M.S., M.D., Emeritus, RMC and Emeritus, PSLH
 ROSTOKER, WILLIAM, B.S., M.S., Ph.D., Complementary Faculty and Visiting Professor, RMC
 SCHENCK, ROBERT, B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Plastic and Reconstructive Surgery)

SHAPIRO, FRED, B.S., M.D., Emeritus, RMC and Emeritus, PSLH
 SHAPIRO, JULES, B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH
 SHEINKOP, MITCHELL B., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

A five-year approved residency program in Orthopedic Surgery is offered at the Medical Center. The first year is a core surgical internship where the trainee rotates through General Surgery, Plastic Surgery, and the Neurosurgical services to acquire basic knowledge in surgical sciences before his full participation in the orthopedic program. Coordinated rotations are offered in the following four years of orthopedic training, including the Orthopedic Service at Presbyterian-St. Luke's Hospital and trauma rotations at affiliated network hospitals. The last year of training is spent as a senior resident in the Orthopedic Department at the Medical Center. Considerable opportunity for independent management of patients is provided at this level of training.

All of the patients admitted to the Service are available for teaching. Clinical experience encompasses a broad scope of musculoskeletal problems, including spinal diseases, modern hip and knee surgery, surgery for arthritis, amputations, trauma, and pediatric orthopedics. In addition to the private outpatient offices located in the Professional Building, active teaching clinics are conducted.

The research facilities of the Department include tissue culture

laboratories for hard tissue histology, biochemistry laboratories, radioisotope facilities, and a laboratory for bioengineering studies. Two major programs are conducted in these facilities. A bioengineering program is conducted in conjunction with the Department of Materials Engineering at the University of Illinois, Chicago Circle Campus. Basic studies on total joint replacement and in the mechanics of the spine constitute the core of this program. The biochemistry program includes studies of the role of enzymes in bone formation and resorption, metabolic studies of bone and cartilage, and studies of bone immunology. Resident participation in research is encouraged. A rotation is available at the second-year level.

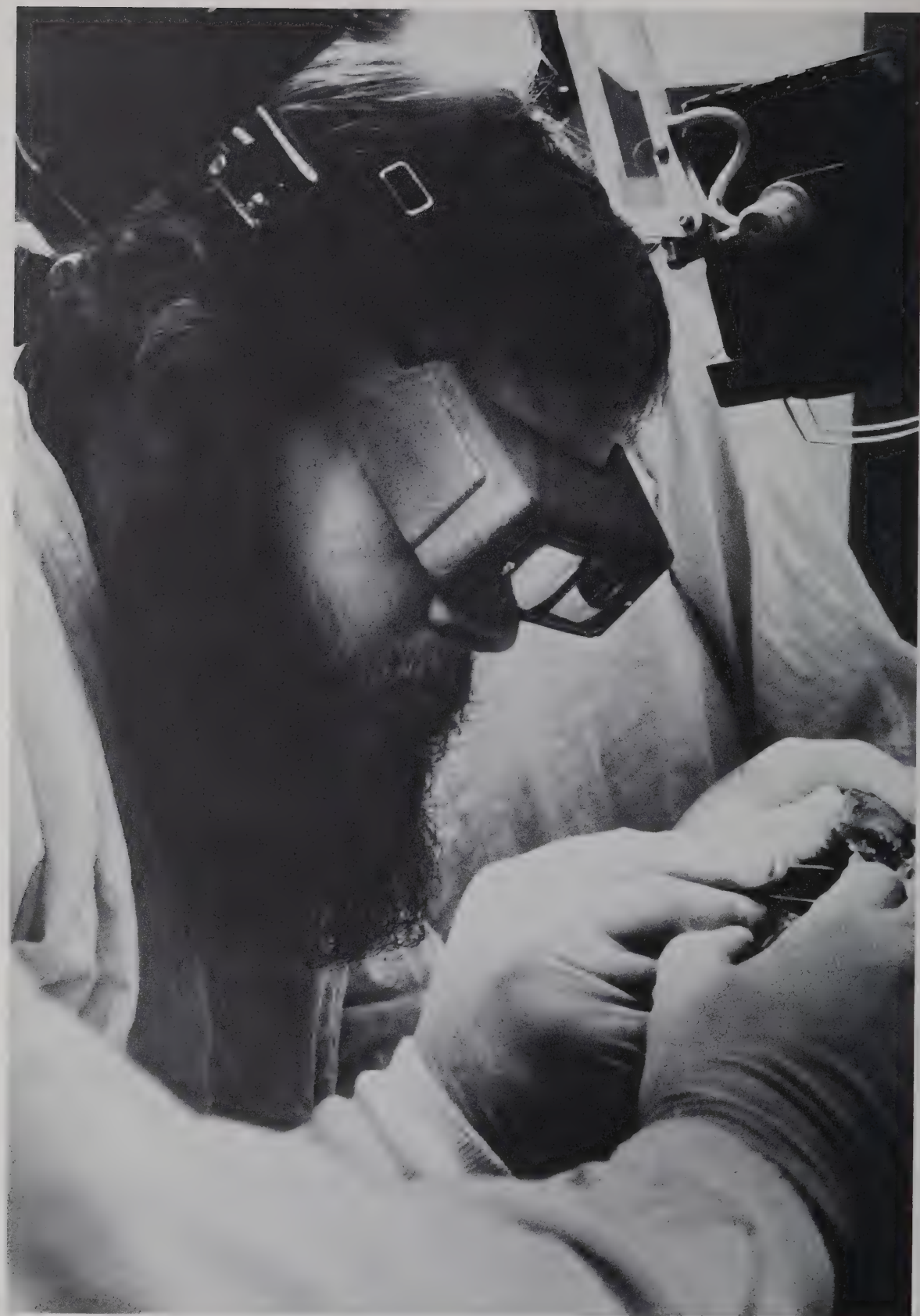
There is a seminar program in basic sciences, regular review of the histopathology of the musculoskeletal system, and weekly teaching-oriented seminars, as well as research conferences.

The residency program is organized around the principle of progressively increasing responsibility with adequate supervision. Inquiries concerning the program should be directed to the Chairman of the Department.

CALDARELLI, DAVID D., M.D., Chairman
 AIMI, KENJI, M.D., Associate Professor, RMC and Associate Attending, PSLH
 ANDREWS, ALBERT H., B.S., M.S., M.D., Professor, RMC and Senior Attending, PSLH

BUCKINGHAM, RICHARD A., M.D., Lecturer, RMC and PSLH
 CALDARELLI, DAVID D., M.S., M.D., Professor, RMC and Senior Attending, PSLH
 COOMBS, ARTHUR J., M.D., Emeritus, RMC and Emeritus, PSLH

Department of Otolaryngology and Bronchoesophagology



Otolaryngology and Broncho- esophagology . . .

FRIEDBERG, STANTON A., A.B., M.D.,
Professor, RMC and Senior Attending,
PSLH
GRIFFITH, THOMAS E., M.D., Lecturer,
RMC and Lecturer, PSLH
HOLINGER, LAUREN D., B.S., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH
HOLINGER, PAUL H., B.S., M.S., M.D.,
Professor, RMC and Senior Attending,
PSLH
HORWITZ, IRWIN D., M.D., Professor,
RMC and Associate Attending, PSLH
HUTCHINSON, JAMES C., M.D.,
Instructor, RMC and Adjunct Attending,
PSLH

RATKO, ARTHUR L., M.D., Assistant
Professor, RMC and Associate Attending,
PSLH
RAZIM, EDWARD A., B.S., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH
SCHILD, JOYCE A., B.S., M.D., Associate
Professor, RMC and Associate Attending,
PSLH
SCIARRETTA, S.A., M.D., Emeritus,
RMC and Emeritus, PSLH
WALLNER, LINDEN J., B.S., M.D.,
Professor, RMC and Emeritus, PSLH

The Department of Otolaryngology and Bronchoesophagology offers a four- or five-year post-M.D. training program approved by the American Board of Otolaryngology. The residency provides for three residents, one in each year of training.

The clinical aspects of resident training are based upon the principles of progressive clinical responsibility, with appropriate supervision in both surgical and outpatient responsibility. The senior resident assumes full responsibility for pre-operative, operative, and post-operative care of the majority of hospital admissions commensurate with his ability and under the direct supervision of the full-time attending staff.

There is a separate clinical and surgical rotation for the first-year trainee at one of the network hospitals, in which the resident is afforded full clinical and surgical responsibility under the close guidance of the network hospital otolaryngology program director.

Hospital admissions to this service average approximately 900 patients annually with an average daily census of 25, encompassing a great variety of otolaryngic conditions. An outpatient otolaryngology clinic held each weekday averages approximately 5,000 patients per year, with the clinical teaching supervised daily by the full-time attending staff. There currently is an average of more than 1,400 surgical procedures,

including microscopic otology, head and neck oncology, craniofacial anomaly, maxillofacial trauma, facial reconstructive, and endoscopic procedures, which provide extensive surgical experience in the various disciplines of contemporary otolaryngology.

Departmental conference activities include weekly seminars in otology, surgical pathology, otolaryngic radiology, head and neck oncology, otolaryngic pathophysiology, audiology, and electronystagmography. In addition, there is a formal course in head and neck surgical anatomy and temporal bone microsurgical dissections held weekly under the supervision of the attending staff.

Resident exposure to basic laboratory or clinical research is provided and currently involves assessment of chronic middle ear disease, airway problems in association with craniofacial anomalies, and the cytologic aspects of head and neck tumors. The resident staff is encouraged to submit papers for presentation at local and national society meetings, and each resident is afforded the opportunity of attending a national meeting or post-graduate medical education course each year under the Department's sponsorship.

The Department is a full-time participant in the Health, Education and Welfare National Cancer Institute's Comprehensive Network Demonstration Project for Head and Neck Cancer, in cooperation with Northwestern

Otolaryngology and Broncho- esophagology . . .

Section of Dental and Oral Surgery

University and the University of Illinois.

An extensive relationship with the Center for Craniofacial Anomalies at the University of Illinois Abraham Lincoln School of

KELLEHER, LEON R., D.D.S., Acting Director

ADUSS, HOWARD, D.D.S., Professor, RMC and Senior Attending, PSLH (also Plastic and Reconstructive Surgery)

ALDER, GARY F., D.D.S., Instructor, RMC and Adjunct Attending, PSLH

BONICK, JAMES F., D.D.S., Assistant Professor, RMC and Assistant Attending, PSLH

DITTMER, CEDRIC, D.D.S., Emeritus, RMC and Emeritus, PSLH

DOUGLAS, BRUCE L., A.B., D.D.S., M.A., M.P.H., Professor, RMC and Senior Attending, PSLH

FEIMER, PETER P., D.D.S., Assistant Professor, RMC and Assistant Attending, PSLH

The Section of Dental and Oral Surgery includes four general dental residencies, all approved by the Council on Dental Education of the American Dental Association, which provide training in all aspects of dental practice within a hospital-based group practice setting. The resident, during at least half of his training year, serves as a member of the group; emphasis is placed on assisting him to understand the workings of a hospital-affiliated group dental practice in which there are continuing interrelationships with physicians in various medical specialties. There is some degree of flexibility in the training program, which varies to a degree according to the individual resident's interests. There is a concentrated three-month program in anesthesiology, pain control, and intravenous sedation. Constant emphasis is placed on the medical aspects of dental practice and opportunities to learn the techniques of treating the dental problems of the handicapped, the aged, and the chronically ill. Each resident has experience in all aspects of oral surgery that might

Medicine provides an opportunity for multidisciplinary management of patients with a wide variety of craniofacial malformations.

GOLD, HENRY O., D.D.S., Assistant Professor, RMC and Assistant Attending, PSLH (also Plastic and Reconstructive Surgery)

HOLMES, WILLIAM H., D.D.S., Emeritus, RMC and Emeritus, PSLH

KELLEHER, LEON R., B.S., D.D.S., Associate Professor, RMC and Associate Attending, PSLH

MARTINEZ, CHARLES R., D.D.S., Assistant Professor, RMC and Assistant Attending, PSLH

REED, DOUGLAS F., D.D.S., Instructor, RMC and Adjunct Attending, PSLH

SHEARON, KENNETH, D.D.S., Instructor, RMC and Consultant, PSLH

WEISS, MARVIN, D.D.S., Associate Attending, PSLH

be encountered by a well-trained general practitioner. A significant amount of major oral surgery is done in the program.

Residents interested in community dentistry are given opportunities to participate in hospital-oriented outpatient programs and to treat bedbound patients away from the hospital environment.

The ultimate objectives of the program are to help the future general practitioner to function effectively in a total health care environment, with the emphasis on the dental and medical team.

Many of the advantages of related hospital departments are available to the resident during his training, including operating room and outpatient experience with general anesthesia, medical and other departmental ward rounds, clinical pathology and tumor conferences, and the care of pediatric and obstetric patients in a preventive dental capacity.

The dental staff includes representatives from dental specialty areas and dental hygiene. The dental program is conducted in a clinical facility which includes 12

**Dental and
Oral Surgery . . .**

**Section of
Communicative
Disorders**

dental chairs, a dental radiology department, a dental laboratory, recovery rooms, consultation

WOLFE, VIRGINIA I., Ph.D., Director
BACON, MARY, B.S., M.A., Instructor,
RMC
MEYER, DIANNE L., B.S., M.A.,
Assistant Professor, RMC and Assistant
Scientist, PSLH

The Section of Communicative Disorders functions as an integral part of the Department of Otolaryngology. Approximately 3,000 patients are seen each year for audiological testing, speech, language and voice evaluations, and therapy. Teaching activities include seminars on topics related to basic and specialized aspects of speech pathology and audiology, such as tympanometry, electronystagmography, and spectrography, as well as aural and vocal

rooms, and a conference room for meetings and training sessions.

HARSCH, GAIL G., B.A., M.A.,
Instructor, RMC
SCHEWITZ, SHEILA, B.S., Instructor,
RMC
WOLFE, VIRGINIA I., Ph.D., Associate
Professor, RMC and Associate Scientist,
PSLH

rehabilitation. Because of the multidisciplinary nature of most communicative disorders, staff members are available for informal consultation on problems related to aphasia, stuttering, developmental language problems, etc. In addition to the educational and clinical interaction with house staff, supervised practica are provided to graduate speech and hearing students from Northern Illinois University.

**Department of
Plastic and
Reconstructive Surgery**

CURTIN, JOHN W., M.D., Chairman
ADUSS, HOWARD, B.S., M.S., D.D.S.,
Professor, RMC and Senior Attending,
PSLH (also Otolaryngology and Bron-
choesophagology)
BRADLEY, CRAIG, B.A., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
CURTIN, JOHN W., B.S., M.D.,
Professor, RMC and Senior Attending,
PSLH
GOLD, HENRY, D.D.S., Assistant
Professor, RMC and Assistant Attending,
PSLH (also Otolaryngology and Bron-
choesophagology)

The two-year graded training program in General Plastic and Reconstructive Surgery is fully accredited by the Tripartite Conference Committee on Graduate Training sponsored by the American Medical Association, the American College of Surgeons, and the American Board of Plastic Surgery. To be considered for appointment, the applicant must have completed a minimum of three years' acceptable training in general surgery in order to comply with the requirements of the American Board of Plastic Surgery.

GREELEY, PAUL W., A.B., M.D.,
Emeritus, RMC and Consultant, PSLH
HUGILL, JOHN V., M.D., Instructor,
RMC and Assistant Attending, PSLH
McNALLY, RANDALL E., B.S., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH
MONROE, CLARENCE W., B.S., M.D.,
Emeritus, RMC and Emeritus, PSLH
SCHENCK, ROBERT, B.A., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH (also Orthopedic
Surgery)

One resident is selected to start training each year on July 1.

At present, an average of more than 1,000 plastic surgery patients are operated upon annually at this institution. Plastic surgery patients, embracing a wide variety of ages and types, may be private, clinic, or from the Mile Square Health Center. Bed privileges and special operative times are offered the residents, but all of the patients in the hospital are available for teaching purposes. The residents' case load comes from an active plastic surgery free clinic super-

Plastic and Reconstructive Surgery . . .

vised by the attending staff.

The residents will be trained in over-all preoperative surgical diagnosis and care, surgical treatment, and postoperative care of patients amenable to treatment by plastic surgery. There is more than adequate experience in the various methods of excisional and reparative surgery of the scalp, face, orbits, nose, oral cavity, neck, trunk, and extremities, as well as experience in management of neoplasms of the head and neck, cosmetic surgery, facial trauma, surgery of the hand, burns, and congenital abnormalities of the extremities and genitalia. Cooperation with other departments (orthopedics, general surgery, genitourinary, gynecology, bronchoesophagology, neurosurgery) allows exceptional experience in reconstruction of the esophagus, larynx, trachea, vagina, and abdomen and the repair of extensive encephalocele, myelomeningocele, and severe craniofacial deformities.

Residents are given ample opportunity to perform major procedures under the supervision of the attending staff. Increasing ability brings increased responsibility. To help the resident acquire skill and judgment in all phases of his work, emphasis is placed on personal instruction at the bedside, in the clinic, in the operating room, and in the

pathology and anatomy laboratories. Active participation in research is mandatory. The program stresses participation in weekly pathological conferences, plastic surgical and general surgical grand rounds, tumor conferences, surgical research projects, hand seminars, and journal reviews. The resident also spends time each week in private offices of the attending staff.

There is a separate Hand Clinic where acute and extensive reconstructive hand surgery cases are seen and operated upon. A large case load of cleft lip, cleft palate, and severe craniofacial anomalies are operated upon by the plastic surgical staff and residents at Presbyterian-St. Luke's Hospital, and there is a close relationship with the Center for Craniofacial Anomalies at the University of Illinois School of Medicine, where more than 1,600 cases are seen each year.

Both junior and senior residents are afforded the opportunity to attend major surgical meetings during the year. They are encouraged to present papers on their own or in conjunction with the attending staff. A resident will be given an appointment as Instructor in Surgery in the Department for the entire training program.

Department of Urology

McKIEL, CHARLES, M.D., Chairman
CALLAHAN, DANIEL H., B.S., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH
COTTRELL, THOMAS L., B.S., M.D.,
Visiting Assistant Professor, RMC and
Consultant, PSLH
EKBAL, SHAHID S., M.B.B.S.,
Instructor, RMC and Assistant Atten-
ding, PSLH
FLANAGAN, MALACHI J., M.D.,
Professor, RMC and Senior Attending,
PSLH
GRAF, EDWIN C., B.S., M.D., Professor,
RMC and Senior Attending, PSLH
GUINAN, PATRICK D., B.S., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

McKIEL, JR., CHARLES F., A.B., M.D.,
Professor, RMC and Senior Attending,
PSLH
MERRICKS, JAMES W., B.A., B.S.,
M.D., Emeritus, RMC and Emeritus,
PSLH
PAPIERNIAK, FRANK B., B.A., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH
VALENTA, JAMES C., M.D., Associate
Professor, RMC and Senior Attending,
PSLH



The Department of Urology offers a five-year residency designed to provide a high degree of competence in all aspects of genitourinary surgery. The residency is fully approved by the residency review committee of the American Medical Association. The first two years are spent in General Surgery and electives in Nephrology, Oncology, Radiology, Infectious Disease, Transplantation, or other specially requested programs, and the subsequent three years in progressive responsibility in Urology.

The general surgical year provides six months of general abdominal surgery, familiarizing the candidate with basic surgical principles and operative technique and providing invaluable experience in over-all patient care. During the second six months, the first-year resident rotates at monthly or bimonthly intervals through some of the surgical specialties. A special effort is made to provide rotations of interest to the trainee and of special value to a urologist.

During the third year, the first spent in Urology, the candidate is instructed in the performance of cystoscopy and the various special diagnostic techniques which are the backbone of the specialty and gains wide experience in urologic surgery, usually as first or second assistant. The third-year resident has wide and primary responsibilities in patient care, but is encouraged to conduct some research in association with a member of the staff in the Urology research laboratory. Such research may be continued in future years.

The fourth-year resident (second year in Urology) is in charge of the private inpatient service and is first assistant at surgery on private patients. He begins to perform major urological surgery, under close supervision, and helps formulate the material to be presented in various teaching rounds. He

begins his TUR experience at the Veterans Administration Hospital, Danville, Illinois.

The senior resident is in over-all charge of the clinic service. He makes daily ward rounds with the third-year Urology resident and the General Surgery resident, interns, and medical students assigned to the Urology Service. By choosing the patients to be presented for evaluation and discussion, the senior resident structures many of the teaching conferences held in the Department. Although attending urologists are always available for counsel and assistance, the senior resident is encouraged to pursue a vigorous and self-reliant course of patient care and teaching. The outpatient clinics of the Department are held three afternoons a week. New patient and follow-up care clinics held twice a week average 35-45 patients per afternoon. Weekly half-day pediatric urologic and outpatient cystoscopy clinics are held under the direction of the senior resident in Urology, with an attending urologist available at all times for consultation.

Attendance of all residents and students on the Urology Service is required at weekly teaching conferences of the Department; at the pyelogram conference in conjunction with the Department of Radiology, interesting current x-rays are reviewed and discussed. At formal rounds, three or four inpatients are presented and discussed by all members of the staff. A joint conference with the Renal and Nutrition Section discusses patients with metabolic disease of interest to the urologist and considers evaluation and management of patients with stones, infection, various nonobstructive renal diseases, and renal failure from all causes.

Pediatric Urology conferences are held three times a month in conjunction with the Department of Pediatrics. Changes in the concept of treatment often are emphasized at these conferences,

Urology . .

and various common problems, such as the management of neurogenic bladder in the child, are periodically reviewed in depth. Pathology rounds are held twice a month. All residents on the Urology Service review microscopic sections of current surgical material.

The journal club meets once a month. At one session, articles of interest in the current *Journal of Urology* are reviewed and discussed. At other sessions, one assigned topic is discussed in detail and three or four particularly stimulating articles are discussed at some length. A member of the attending staff acts as moderator.

All residents on the Urology Service are expected to attend

weekly surgical grand rounds and any of the other teaching conferences offered at the hospital that may be of interest, such as the informal course in surgical physiology held on Saturdays.

Out-of-town speakers are regularly invited to give special rounds. These may deal with new research, new surgical or diagnostic techniques, or new concepts in treatment.

The resident also is required to participate in the regular meetings of the Chicago Urological Society.

Applications are available through the NIRMP. Personal interviews are recommended for those seeking positions.

Department of Diagnostic Radiology

BUENGER, RICHARD E., M.D.,
Chairman

ACKERMAN, LAURENS V., M.D.,
Ph.D., Assistant Professor, RMC and
Assistant Attending, PSLH (also
Biomedical Engineering)

ADLER, YOLANDA T., M.D., Associate
Professor, RMC and Associate Attending,
PSLH

ALCORN, FRANKLIN S., B.A., M.D.,
Professor, RMC and Senior Attending,
PSLH

BOGDONOFF, MAURICE L., B.S.,
M.D., Professor, RMC and Senior
Attending, PSLH (also Internal Medicine)

BUENGER, RICHARD E., B.S., B.M.,
M.D., Professor, RMC and Senior
Attending, PSLH

CHARTERS, JOHN R., B.S., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

CHILCOTE, JR., WAYNE S., A.B., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

CHUNG-BIN, ANTHONY, B.S., M.Sc.,
Associate Professor, RMC and Senior
Scientist, PSLH (also Therapeutic
Radiology)

CLARK, JOHN W., M.D., Professor, RMC
and Senior Attending, PSLH

FORDHAM, ERNEST W., B.S., M.D.,
Professor, RMC and Senior Attending,
PSLH (also Nuclear Medicine)

GARDINER, RICHARD, A.B., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH

GARDNER, H. REX, B.A., M.D.,

Assistant Professor, RMC and Associate
Attending, PSLH (also Pediatrics)

GRAINER, LORNE S., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH

HILL, B. JAY, M.D., Visiting Professor,
RMC and Consultant, PSLH

HUCKMAN, MICHAEL S., B.A., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH (also Neurological
Sciences)

MATTHEW, GUY R., B.A., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH (also Internal Medicine)

PATEL, SURESH K., M.B.B.S., Associate
Professor, RMC and Senior Attending,
PSLH

PETASNICK, JERRY P., B.A., M.S.,
M.D., Associate Professor, RMC and
Senior Attending, PSLH

RAMACHANDRAN, PANOLIL C., B.S.,
M.B.B.S., Assistant Professor, RMC and
Assistant Attending, PSLH

RAMSEY, RUTH G., B.S., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

SQUIRE, FAY H., M.D., Emeritus, RMC
and Emeritus, PSLH

TURNER, DAVID A., B.A., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH

The Department of Diagnostic
Radiology provides consultation for
well over 130,000 patient

examinations each year. The
Department, which encompasses a
space of 27,500 square feet, is

Diagnostic Radiology . . .

located on the main floor of the hospital and is divided, operationally and professionally, into eight sections. There is a full-time staff of 16 diagnostic radiologists, with a full-time director of each section. The other radiologists are assigned to individual sections, or rotate through several sections. All of the routine radiographic work is displayed daily on specially loaded viewing devices within each subspecialty section for interpretation, consultation, and teaching. Special

display areas are also located in the Emergency Room, Surgical Intensive Care Unit, Medical Intensive Care Unit, and in the portable examination operational center. Each day the responsible sections consult on material in these outposts as often as is necessary.

Sections: The responsibilities for various types of radiologic examinations are divided among the subspecialty sections:

Section of General Radiology

PETASNICK, JERRY P., M.D., Director

All examinations not specified under other sections, all emergency examinations, and the following special examinations: arthrogra-

phy, sialography, mammography, lymphangiography, peripheral arteriography, and abdominal arteriography (other than GU).

Section of Ultrasound

CHILCOTE, WAYNE S., JR., M.D., Director

Sectional imaging of the soft tissues of the body, including cardio-

vascular, abdominal, and obstetrical examinations by ultrasound echo techniques.

Section of Computed Tomography

CLARK, JOHN W., M.D., Director

Clinical and research responsibilities for assigning both brain and body scanning devices and

computer facilities to those sections offering consultation in Computed Tomography.

Section of Thoracic Radiology

BOGDONOFF, MAURICE L., M.D., Director

Routine chest radiography and fluoroscopy, bronchography,

tomography, lung biopsy, angiocardiology, coronary arteriography, thoracic aortography.

Section of Gastrointestinal Radiology

GARDINER, RICHARD, M.D., Director

Barium studies of the gastrointestinal tract, gallbladder, and biliary ducts, including T-Tube

and operative cholangiography, salpingography, and pneumogynecography.

Section of Urologic Radiology

PATEL, SURESH K., M.B.B.S., Director

Excretory urography, retrograde pyelography, arteriography and venography of the kidneys and

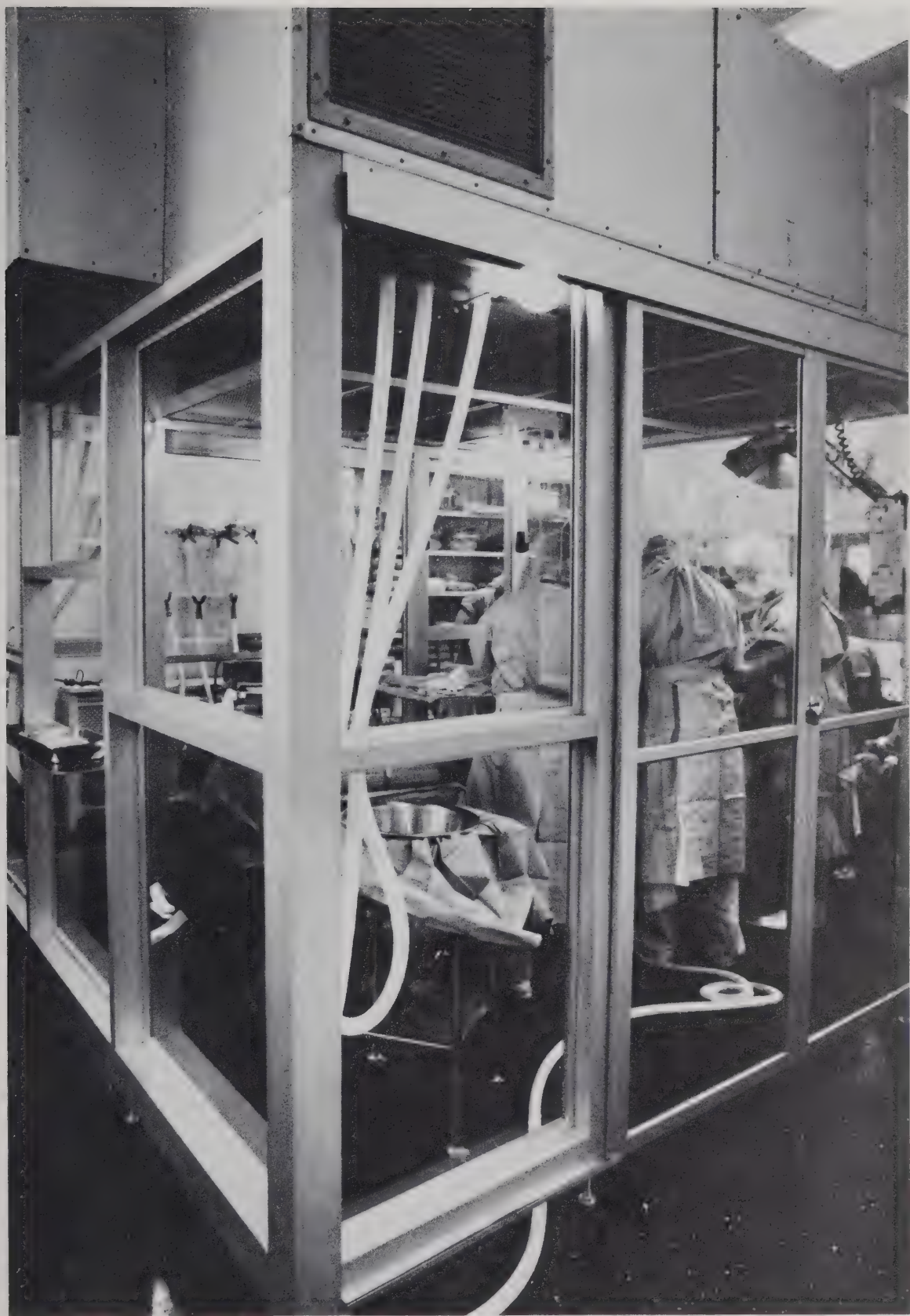
adrenals, renal cyst puncture, and voiding cystography (other than pediatric patients).

Section of Pediatric Radiology

GARDNER, H. REX, M.D., Director

All routine and special radiographic procedures on children, with the exception of

neuroradiologic and arteriographic studies.



HUCKMAN, MICHAEL S., M.D.,
Director

Plain skull radiography, myelography, all head and neck arteriography and venography, ventriculography, and pneumoencephalography.

Facilities: Modern equipment made by major American and foreign manufacturers is provided for all of the standard radiographic examinations in 15 of the main departmental examining rooms. Some of these provide for general examinations and some of them are equipped for special procedures, such as magnification radiography or examinations of particular areas of the body, such as the head or chest. A special room is equipped for mammography. Fluoroscopy of the gastrointestinal tract is performed in a suite of rooms. The examinations are remotely controlled, amplified, and televised with cineradiography. There are seven laminographic devices.

A recently constructed addition to the Department houses the most sophisticated and up-to-date facilities for performing any of the most complicated special radiographic procedures. Three large rooms contain biplane serial filming of the highest technical capabilities for angiography. A remotely controlled, specially mounted, universally rotating table is equipped with a universally rotating fluoroscopic device. Cineradiography and tomography are immediately available for procedures on this machine requiring manipulation of patients and all the flow of contrast materials, such as: bronchography, myelography, cholangiography, percutaneous biopsy, etc.

The neuroradiological unit contains a somersaulting chair with tomographic and arteriographic capabilities for pneumoencephalography. A precision, multi-modular tomographic room is

reserved for tomography of the temporal bone and other special areas of the body requiring more accuracy than the other departmental traditional laminographic equipment affords. A special section with three machines is devoted to computed tomography of the brain and body.

Additional equipment is located on the same floor as the operating rooms. In this area, fluoroscopic equipment is available for bronchography. One of the urographic rooms contains the most modern fluoroscopic filming and 77mm serial filming for retrograde pyelography, which is always performed under the direction of a radiologist. An adjacent cast room provides orthopedic radiologic services and consultation. The portable radiographic equipment for use throughout the hospital is dispatched from this area. The films are processed and displayed in this area for rapid interpretation and ease of accessibility.

Coronary arteriography is routinely performed on special biplane 35mm cineradiographic equipment located in the cardiorespiratory laboratory. These examinations are all performed by the Section of Cardiorespiratory Diseases, Department of Medicine.

Training Programs: This Department has been approved by the American Medical Association for residency training in straight diagnostic radiology. There are 20 residents in training, matching five residents annually through the NIRM. The first of four years is spent in patient care training, with rotations in various services of internal medicine and the surgical specialties. After the first year, the resident staff is responsible for the interpretation of all radiography and performance of every special procedure in the Department. Every film interpretation, however, is individually checked by an attending staff member of the appropriate section, and every special

procedure is supervised throughout its duration by a specialty radiologist. Various degrees of responsibility are delegated during the training program. During the second year, the first month is spent in a week-long assignment to each of the four major subspecialties: General Radiology, Gastrointestinal Radiology, Thoracic Radiology, and Urologic Radiology. There are tri-weekly physics courses for radiation safety and protection and daily indoctrination in emergency film interpretation. In order to prepare the resident for night call rotation, which begins in the second month of training, the first-year residents take second call with senior residents during the indoctrination period. For the remainder of the year, second-year residents rotate monthly through these four subspecialty areas.

During the third year, the residents rotate through each of the four major subspecialties for periods of six weeks and also spend six weeks each in Pediatric Radiology and Neuroradiology. During this year, three months are spent in the Department of Nuclear Medicine to fulfill the requirements of the American Board of Radiology. Weekly laboratory courses in physics are given for most of the year, in addition to the 34 lecture hours of a regularly scheduled didactic radiation physics course. A special year-end refresher course in physics is given in preparation for the written examination by the American Board of Radiology. During the fourth year of training, two or more months are spent in each of the subspecialties.

Clinical clerkships of 8-12 weeks duration are offered to third- and fourth-year students in Rush Medical College and other Chicago medical schools. These students are assigned to the departmental sections, providing a great stimulus for on-the-job teaching for residents as well as attending staff.

Specially prepared programmed teaching courses are routinely scheduled during the clerkship.

Within the Department, and other departments in the institution, courses are offered each year in physics, basic radioactive isotope techniques, biostatistics and related mathematics, and the programming and medical usage of computers.

Conferences: There are daily conferences within each section for critical review of the day's work with the attending staff, residents, interns, and medical students. At all these sessions, material is selected for presentation at the section's weekly conference. Topics pertinent to this material are assigned to residents for study or review prior to the presentation.

Daily noon conferences are held in a special departmental conference room equipped with film and slide display devices. Each section presents a conference once a week. Staff and house staff from other departments frequently attend these conferences, in which pathological material of interesting cases is coordinated.

Each week Radiology grand rounds are held in the hospital's main auditorium. The Radiology residents are assigned several of these hours each year for the formal presentation, with written manuscript and slide material, of any radiological topic of their choice. Preliminary advisory sessions on the selection of topics and methods of presenting the material are held with the Department chairman and the subspecialty faculty members.

The Department provides radiologic consultation at various hospital-wide conferences: Medical grand rounds, Surgical grand rounds, Pediatric grand rounds, Neurology grand rounds, Tumor conference, and Lymphoma conference. The material for these conferences is assigned for pre-review and presentation by one of



Department of Therapeutic Radiology

the residents in the appropriate section. He is supported at these conferences by an attending staff member.

Adjacent to the Department library is a small photography room containing equipment for preparation of Polaroid prints and permanent slides for display of radiographic material at any of the hospital or departmental conferences.

All of the Diagnostic Radiology residents are urged to attend the scientific meetings of the Chicago Roentgen Society, which are held six times a year. These include seminars in angiography, neuroradiology, pediatric radiology, nuclear medicine, and therapeutic radiology.

Time is made available for all of the residents to attend refresher courses at the annual convention of the Radiological Society of North America, which is held in Chicago every fall. Although travel expenses are not paid, those residents wishing to attend approved out-of-

town seminars, conferences, and conventions may arrange for the time to do so.

Teaching File: Each section maintains its own collection of material for training of radiology residents, medical students, and student technologists, in the form of the original films (which correlate pathologic and autopsy reports) or as slide material for study.

All coding of interesting teaching or pathological material is done on a sectional basis.

A radiological library is maintained within the Department proper. A complete collection of radiologic and para-radiologic textbooks, bound journals, and current radiologic journals is available in this library. There are facilities for study in the Department, and this material does not leave the library. The library is also a reservoir for textual and slide material from previous Radiology grand rounds presentations.

HENDRICKSON, FRANK R., M.D.,
Chairman

CHUNG-BIN, ANTHONY, B.S., M.Sc.,
Associate Professor, RMC and Senior
Scientist, PSLH (also Diagnostic
Radiology)

COX, RICHARD, A.B., M.S., Ph.D.,
Assistant Professor, RMC and Associate
Scientist, PSLH

HENDRICKSON, FRANK R., B.A.,
M.D., Professor, RMC and Senior
Attending, PSLH

KARTHA, PONNUNNI K. I., B.Sc.,
M.Sc., Associate Professor, RMC and
Associate Scientist, PSLH

MURTHY, ANANTHA K., M.B.B.S.,
Assistant Professor, RMC and Assistant
Attending, PSLH

PHILLIPS, RICHARD L., M.D., Visiting
Associate Professor, RMC

ROUTH, ANUPAM, M.B.B.S., Assistant
Professor, RMC and Assistant Attending,
PSLH

SAXENA, VIRENDA S., B.S., M.B.B.S.,
Associate Professor, RMC and Con-
sultant, PSLH

SHIRAZI, SYED J. H., M.D., Visiting
Associate Professor, RMC

WACHTOR, THOMAS E., B.S., M.S.,
Assistant Professor, RMC

The Department offers a three-year program leading to qualification for American Board of Radiology examination in Therapeutic Radiology, with a fourth year of special training in therapeutic radiology and/or clinical use of radioactive isotopes for those desiring such augmentation of previous experience.

The Radiotherapy Section consists of an integrated area of

6,500 square feet devoted to clinical problems and 1,000 square feet of research space. Within this area are two supervoltage teletherapy machines, one orthovoltage, one superficial treatment machine, and an image-amplified simulator to permit accurate localization of treatment volumes. The radium laboratory contains 750 mgms. of radium or isotope equivalent for clinical use. An electronics shop

Therapeutic Radiology . . .

provides maintenance, design, and production of special equipment.

Rush-Presbyterian-St. Luke's Medical Center registers more than 1,600 new cancer patients a year, with more than half receiving some form of radiotherapy. There are more than 15,000 treatment visits and 2,000 follow-up visits a year. All patients are seen initially by the radiotherapy house staff, with preliminary evaluation and treatment planning before finalization of the treatment program with the attending staff.

Patients are admitted to the radiology service directly and operating room priority is assigned for radiotherapeutic operating room procedures. Community hospitals within the Medical Center network permit rotation and exposure to the problems of community hospital practice.

There is an active clinical and basic research program in the areas of: (1) preoperative radiotherapy; (2) combined chemotherapy and radiotherapy; and (3) optimum fractionation and protraction. The National Institutes of Health, the American Cancer Society, and local institutional funds provide financial support. Active participation in these programs by

residents and fellows is strongly encouraged. Opportunities for independent investigation are available.

Medical students from Rush and other schools rotating through the Department offer a stimulus as well as a teaching challenge. In addition, interns from Surgery have an elective one-month rotation into Therapeutic Radiology. The School of Radiotherapeutic Technology offers still another teaching opportunity for motivated staff. The training program is basically related to patient problems. Assignment of all new patients is made for evaluation and treatment planning. Plans for all new patients and any problem patients are reviewed daily with the entire attending and resident staff. Daily treatment and follow-up is performed in conjunction with the attending staff. The senior resident is responsible for all Health Center patients, with consultation if desired. Adequate opportunity is present to ensure development of proficiency in all necessary external treatment and implant modalities. Approximately one-fourth of the training period is devoted to radium and isotope training.

Department of Obstetrics and Gynecology

WILBANKS, GEORGE D., M.D., The John M. Simpson Chairman of Obstetrics and Gynecology

ARCHIE, JULIAN T., B.A., M.D., M.P.H., Assistant Professor, RMC and Assistant Attending, PSLH

BAUM, HUGO C., B.S., M.D., Associate Professor, RMC and Senior Attending, PSLH

BEEBE, ROBERT A., B.S., M.D., Assistant Professor, RMC and Senior Attending, PSLH

BOYSEN, HARRY, B.S., M.D., Chairman Emeritus

BURKS, JAMES L., M.D., Associate Professor, RMC and Associate Attending, PSLH

CEPEDA, ALBERTO, M.D., Associate, RMC and Adjunct Attending, PSLH

FINOLA, GEORGE C., B.A., M.D., Associate Professor, RMC and Senior Attending, PSLH

GEITTMAN, WILLIAM F., B.A., M.D., Associate Professor, RMC and Emeritus, PSLH

GOTTSCHALK, WILLIAM, B.A., M.D., Professor, RMC and Senior Attending, PSLH (also Anesthesiology)

KHAN, NAJMA, M.D., Instructor, RMC and Adjunct Attending, PSLH

LEE, ALICE W., M.D., Instructor, RMC and Adjunct Attending, PSLH

LONG, JOHN S., B.S., M.D., Assistant Professor, RMC and Senior Attending, PSLH

MAROULIS, GEORGE, B.S., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

MERRICK, FRANK W., B.A., M.D., Assistant Professor, RMC and Assistant Attending, PSLH

NICHOLS, ERVIN E., M.D., Visiting Professor, RMC and Consultant, PSLH

NAMA, PREABHAVATHI, M.D., Associate, RMC and Adjunct Attending, PSLH

NORTHROP, GRETAJO, B.S., M.S., Ph.D., M.D., Assistant Professor, RMC and Assistant Attending, PSLH (also Internal Medicine)

Obstetrics and Gynecology...

OLSON, ROBERT P., A.B., M.D.,
Assistant Professor, RMC and Associate
Attending, PSLH
ORBAN, DENES, M.D., Associate
Professor, RMC and Senior Attending,
PSLH
RAMAKRISHNAIAH, USHA, M.D.,
Associate, RMC and Adjunct Attending,
PSLH
PRIEST, FRED O., M.D., Emeritus, RMC
and Emeritus, PSLH
RUSSELL, JAMES L., B.S., M.D.,
Associate, RMC and Adjunct Attending,
PSLH
SCHEWITZ, LIONEL J., M.B.C.H.,
Assistant Professor, RMC and Assistant
Attending, PSLH

SHEIKH, GHULAM N., M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH
SZYMANSKA, ZOFIA, M.D., Associate,
RMC and Adjunct Attending, PSLH
TJIOOK, GAN L., M.D., Instructor, RMC
TRUCHLY, VASIL, M.D., Assistant
Professor, RMC and Senior Attending,
PSLH
VOYEVIDKA, IHOR, M.D., Associate,
RMC and Adjunct Attending, PSLH
WILBANKS, GEORGE D., A.B., M.D.,
Professor, RMC and Senior Attending,
PSLH
WOLFF, JOHN R., M.S., M.D., Professor,
RMC and Senior Attending, PSLH (also
Psychiatry)

The Department of Obstetrics and Gynecology offers a four-year post-medical school training program approved by the American Board of Obstetrics and Gynecology, which emphasizes comprehensive experience in all phases of obstetrics and gynecology, as well as experience in internal medicine, neonatology, and obstetric and gynecologic pathology, to prepare the physician for the practice of general obstetrics and gynecology, for further subspecialty training, or for a career in academic obstetrics and gynecology. Elective time may be spent in clinical rotations or basic research programs in the Department of Obstetrics and Gynecology or in related specialties, depending on the interests of the individual resident. There are five positions at each level of a four-year program for a total of 20 residents. No internship is required in order to begin at the second year if positions are available.

All members of the attending staff are certified by the American Board of Obstetrics and Gynecology. They are actively engaged in the teaching programs for house staff and medical students. Residents at all levels are involved in student teaching activities with Rush Medical College.

Approximately 3,000 obstetric patients are delivered in the hospital each year; 60 percent of

these are Health Center patients whose definitive care is given by the members of the house staff under the supervision of the attending staff. More than 1,600 surgical procedures are performed by the Department each year; about one-third are Health Center patients on whom surgery is performed by the resident staff. Since this Department has been noted for pioneering in vaginal surgery, special emphasis is placed upon this area.

The Department has staff representing the major obstetric and gynecologic subspecialties: Perinatal Biology, Endocrinology, Oncology, Community Obstetrics, Family Planning, Sexual Dysfunction, and Psychosomatic Obstetrics and Gynecology. Each subspecialty is involved in interdisciplinary associations to broaden its patient care, teaching, and research objectives (*e.g.*, the Endocrinology Service involves OB/GYN, Medical and Pediatric Endocrinologists), and there is maximum interdepartment exchange and cooperation (*e.g.*, between Perinatal Biology, Endocrinology, and Oncology, who use the same rhesus monkey colony as experimental models). Faculty with these diverse backgrounds, yet with a common interest in Clinical Obstetrics and Gynecology, offers the resident depth in basic training and opportunity for specialized consultation and learning. Post-residency fellowships currently are



Obstetrics and Gynecology . . .

Section of Gynecologic Endocrinology and Infertility

offered in Perinatal Biology, and others are being developed in each of the subspecialties in preparation for the subspecialty board

MAROULIS, GEORGE, M.D., Director

This section of the Department of Obstetrics and Gynecology encompasses the scope of the new subdivision of the American College of Obstetrics and Gynecology.

Laboratories that are able to assay protein and steroid hormone levels in excretory, secretory, or tissue amounts are available. In conjunction with the Medical Division Endocrinology Section Laboratories, all known hormone assays are available. Clinical and research application of current methods of analysis will be used, including saturation analysis (competitive protein binding), radioimmuno-assay, gas-liquid chromatography, and chemical analysis.

Clinics and seminars devoted to gynecologic endocrine problems

Ambulatory Reproductive Health Care Unit

BURKS, JAMES L., M.D., Director

Community obstetrics is closely allied with the Department of Community Health of the Division of Medicine and the Mile Square Health Center. One of the aims of Rush-Presbyterian-St. Luke's Medical Center is to innovate methods for the delivery of health care to all segments of the population. Residents and students are involved in the family planning clinics. In the relationship with the

requirements of the American Board of Obstetrics and Gynecology.

and infertility are held in conjunction with other divisions of the Hospital and Medical School sharing mutual interest.

Special diagnostic and operative procedures, such as hysteroscopies, laparoscopies, tubal ligations, and hystero-salpingography, are performed by the resident physicians on rotation through the Section. The practical value and intellectual stimulation that evolves from these efforts will be available for medical students, residents, fellows, and staff at each level of development. The learning stimulus and mutually beneficial arrangement of this total program should aid the continued progress of both individual and institution.

Specific programs for residents and fellows will be arranged under the guidance of the faculty of the Section.

Mile Square Health Center, opportunity is offered to those interested in becoming acquainted with the sociologic and ethnic ramifications of delivery of health care to the indigent. Continuous evaluation of the impact of these efforts as they relate to improved maternal and infant health, cancer screening, and other epidemiologic aspects of the community is in progress. A resident may elect to spend time in any of these projects.

Section of Gynecologic Oncology

MLADINEO, JOHN, M.D., Director

Gynecologic Oncology is an integral part of the combined Oncology Services, involving Radiation Therapy, Medical Oncology, Surgical Oncology, and Pathology. There are weekly tumor conferences and tumor clinics, along with day-to-day management by the resident staff of patients with gynecologic malignancies. More

than 150 patients with various types of gynecologic malignancies are treated each year. All residents are involved in basic cancer patient care and may elect to pursue a clinical or basic project during their training period.

Several clinical research projects are in progress within the division and in cooperation with the nationwide Gynecologic Oncology

*Gynecologic
Oncology...*

Group, involving surgery, radiation therapy, chemotherapy, or various combinations of two or more types of therapy. Evaluation of early cervical neoplastic lesions is made in a special clinic utilizing cytology, colposcopy, and colpomicroscopy. More basic studies are being conducted concerning *in vitro* carcinogenesis and cell differentiation.

The emphasis of this subspecialty is on training the residents

and students to be adept at managing clinical problems in the diagnosis, therapy, and prevention of gynecologic malignancies. Intelligent management of clinical problems comes from a thorough understanding of the pathogenesis of the disease. The staff's interest is clinical, and basic research encourages a scientific approach to solving clinical problems.

*Section of
Perinatal Biology*

**GOTTSCHALK, WILLIAM, M.D., Acting
Director**

The activities of both inpatient and outpatient services are geared to providing the highest quality of total care possible. Whenever appropriate, patients who are believed to be at increased risk of an unsuccessful obstetric outcome are seen in specialty clinics, where consultative expertise is available to the patient in a multistress setting that is supervised by the obstetrician. Liberal use is made of similar inpatient services for patients who cannot be managed adequately on an outpatient basis. Multiple weekly conferences and seminars directed by attending

staff provide ample opportunity to the resident staff and medical students to explore the clinical problems encountered, as well as to review the basic concepts of perinatal biology.

The resident also has the opportunity for in-depth studies of special problems of obstetrics in the Perinatal Biology Laboratory (formerly a division of the Department of Embryology of the Carnegie Institution of Washington). This laboratory is dedicated to the investigation of maternal and fetal physiologic and pathologic processes and utilizes the rhesus monkey as the experimental model.

*Section of
Psychosomatic
Obstetrics and
Gynecology*

WOLFF, JOHN R., M.D., Director

Recognizing that the obstetrician-gynecologist is in reality the primary care provider of health care to his patients, the Section of Psychosomatic Obstetrics-Gynecology is organized to stimulate and encourage expertise in this area. A productive liaison exists with the Department of Psychiatry. Combined appointments have produced an interdisciplinary team of clinicians and a research group. Consultation concerning patients with psychomatic problems and/or unusual emotional difficulties is available to the staff at all times.

The recent addition of a sexual dysfunction clinic makes counseling and treatment available to

patients and stresses a consciousness of sexuality in all patient care.

Medical students attend lectures in Phase II during the course in Human Reproduction. During the Phase III clerkships, weekly seminars include patient interviews and discussion of the psychosocial aspects of illness, especially relating to the problems of depression, the reaction to gynecologic surgery, cancer, and sterilization. Patients seen in the Adolescent Family Center and the Family Unit provide an insight into the varied aspects of health care and to the moral and ethical questions on a practical basis. Elective courses are offered to those who wish to pursue psychosomatic obstetrics and gynecology further.

**Department of
Pathology**

Residents have the opportunity to acquaint themselves with the effect of the emotions on reproductive and gynecic physiology, as well as the importance of social and economic factors in physical and mental health. The case method appears to serve as the optimum in teaching and experience.

The entire Department is devoted to the principle of good

**WEINSTEIN, RONALD, M.D., The
Harriet Blair Borland Chairman of
Pathology**

**ALROY, JOSEPH, D.V.M., Assistant
Professor, RMC and Senior Scientist,
PSLH**

**AYER, JOHN P., A.B., M.S., M.D.,
Professor, RMC and Senior Attending,
PSLH**

**BANNER, BARBARA, M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH**

**CLASEN, RAYMOND A., B.S., M.D.,
Associate Professor, RMC and Senior
Attending, PSLH**

**DAINAUSKAS, JOHN R., M.D., Associate
Professor, RMC and Associate Attending,
PSLH**

**EISENBERG, BRENDA, Ph.D., Assistant
Professor, RMC**

The principle underlying the program in Pathology is to offer simultaneous progressive training in service functions, research, and teaching. It is believed that continuous divided attention to several subjects over a long period is preferable to concentrated attention to each subject in sequence over short periods. The program also offers to the first-year trainee or resident multiple choices as to how to use time: The long period of continuous exposure to multiple subjects, beginning with the first day of training, should lead the trainee or resident more quickly to a recognition of his interests as well as develop his capacity for interpretation of diverse aspects of laboratory operations in daily hospital life. Current cases are analyzed in weekly tumor clinics, pathology staff conferences, hematology, autopsy pathology,

patient care and to developing new systems for delivering this care to the community. Psychosomatic obstetrics and gynecology adheres to this by stimulating trainees to develop their own special interests and by providing opportunities for enhancing their understanding and expertise.

**GOULD, VICTOR E., M.D., Professor,
RMC and Senior Attending, PSLH**

**HASS, GEORGE M., B.S., M.D., The
Otho S.A. Sprague Professor, RMC and
Senior Attending, PSLH**

**HAWKINS, EARL, M.D., Assistant
Professor, RMC and Assistant Attending,
PSLH**

**MILLER, ALEXANDER W., M.D.,
Associate Professor, RMC and Associate
Attending, PSLH**

**PAULI, BENDICHT, D.V.M., Assistant
Professor, RMC and Senior Scientist,
PSLH**

**PELLETTIERE, EDMUND V., B.A.,
M.D., Assistant Professor, RMC and
Assistant Attending, PSLH**

**SCHWARTZ, MELVIN M., M.D.,
Assistant Professor, RMC and Assistant
Attending, PSLH**

surgical pathology, cytopathology, liver, renal, and clinical pathology conferences, and regular seminars on biochemistry, neuropathology, microbiology, and current research.

The Department of Pathology is divided into several sections. The principal patient service sections participating are autopsy pathology, surgical pathology, and cytopathology. About 550 autopsies are done each year; interns and residents perform about 70 autopsies each year. They are done thoroughly and with close attending staff assistance through completion of the protocol for permanent binding.

The residents assigned to surgical pathology are responsible for examination of about 14,000 surgical specimens, which are studied grossly and microscopically under close attending staff

supervision. They are also responsible, with attending staff consultation, for about 1,000 rapid frozen section diagnoses during surgical procedures each year.

About 13,000 cytopathology specimens are screened by staff cyto-technologists each year. Problems are submitted daily to residents for evaluation and then to the attending staff for final opinion.

During assignments to the Department of Biochemistry, house staff encounter instruments and procedures involved in practically every determination in clinical chemistry.

During assignments to the Department of Microbiology, almost every diagnostic procedure is encountered which has relevance to virology, serology, bacteriology, mycology, and parasitology. Emphasis in both rotations is upon laboratory operation rather than technical details, but there is considerable time for observation of skilled technicians at the bench.

During assignments to the Section of Hematology, residents routinely do bone marrow preparations and study blood smears. Other hematologic procedures in great variety and technical detail are carried out regularly in these laboratories. This is an especially valuable experience in correlation of clinical and laboratory findings. There is also an opportunity to learn the details of operation of a modern and very active blood bank. Residents also spend several weeks in the Division of Coagulation, where major time is spent in supervised interpretation of coagulograms. The assignment in Immunology involves learning the techniques of immunology, especially as they are applied to the diagnosis or management of human disease.

For research training, the Division of Pathology has several well-equipped laboratories staffed by about 20 technicians and with more than 10,000 square feet of

floor area. The animal laboratories house several hundred mice and rats. There are ancillary facilities, such as surgical operating rooms, x-ray rooms, and autopsy rooms. Special pathology research laboratories are designed and equipped for virology, histochemistry, electron microscopy, phomicrography, ultracentrifugation, tissue fractionation, visible and ultraviolet spectrophotometry, flame spectrophotometry, atomic absorption spectrophotometry, column and paper chromatography, high-voltage electrophoresis, tissue culture, amino acid chromatography, and gas chromatography. These laboratories and instruments are available to support research interests of the resident staff. The required technical assistance is equally available and is of great importance in the research training program, although research is not a required part of the program.

The first-year post-M.D. trainee program in Pathology accepts two trainees who spend nine months on autopsies and surgical pathology. During this period, the trainee may select a research subject and begin investigative work under supervision of the attending staff. The trainee during the entire 12-month period attends the seminars and conferences involving case-oriented exercises designed to correlate the course of human disease with laboratory findings. The year is equivalent to one year of resident training for Board Certification.

The major part of the second and third years is devoted to both clinical and anatomic pathology. All descriptions and diagnoses of surgical specimens, after consultation with the pathology attending staff, are the responsibility of residents, who are also assigned responsibility for assisting first-year residents with gross postmortem procedures and gross surgical pathology.

The resident is responsible for

preparation and interpretation, with attending staff consultation, of frozen sections for rapid diagnosis during surgical procedures. He continues to attend all seminars. Research previously undertaken is continued. If serious interest in research becomes apparent, technical assistance is assigned to facilitate the investigation and the resident assumes responsibility for direction of one or more research technicians.

The resident becomes more active in the teaching of pathology to medical students in the hospital. The resident will spend four months in the Department of Microbiology, learning diagnostic procedures in virology, bacteriology, mycology, and parasitology. Six months is spent in the Department of Biochemistry learning principles, instrumentation, and procedures related to clinical biochemistry. The resident continues attendance at all seminars and, if interested, research with the aid of technical assistants.

The residents also spend four months in the Department of Hematology, during which time they perform and interpret bone marrow aspirates and biopsies. They also attend hematology rounds. About two weeks is spent in the general hematology laboratory. One to two months is spent in blood bank and also in coagulation.

Assignment of three months in the Department of Immunology emphasizes clinical immunologic tests and the relations of immunology to clinical problems.

Two fellowship positions are available for persons with specific research interests or who wish to add to their experience in surgical pathology and cytopathology by concern with daily diagnostic problems, supplemented by rotation on postmortem service in selected cases, attendance at all seminars, conducting those of

special interest, and research and teaching, as in the fourth-year program. These activities allow the resident at least one-half of his time for research or further specialty training in accordance with his choice. Excellent opportunities are available in cytopathology, electron microscopy, neuropathology, and various aspects of clinical pathology.

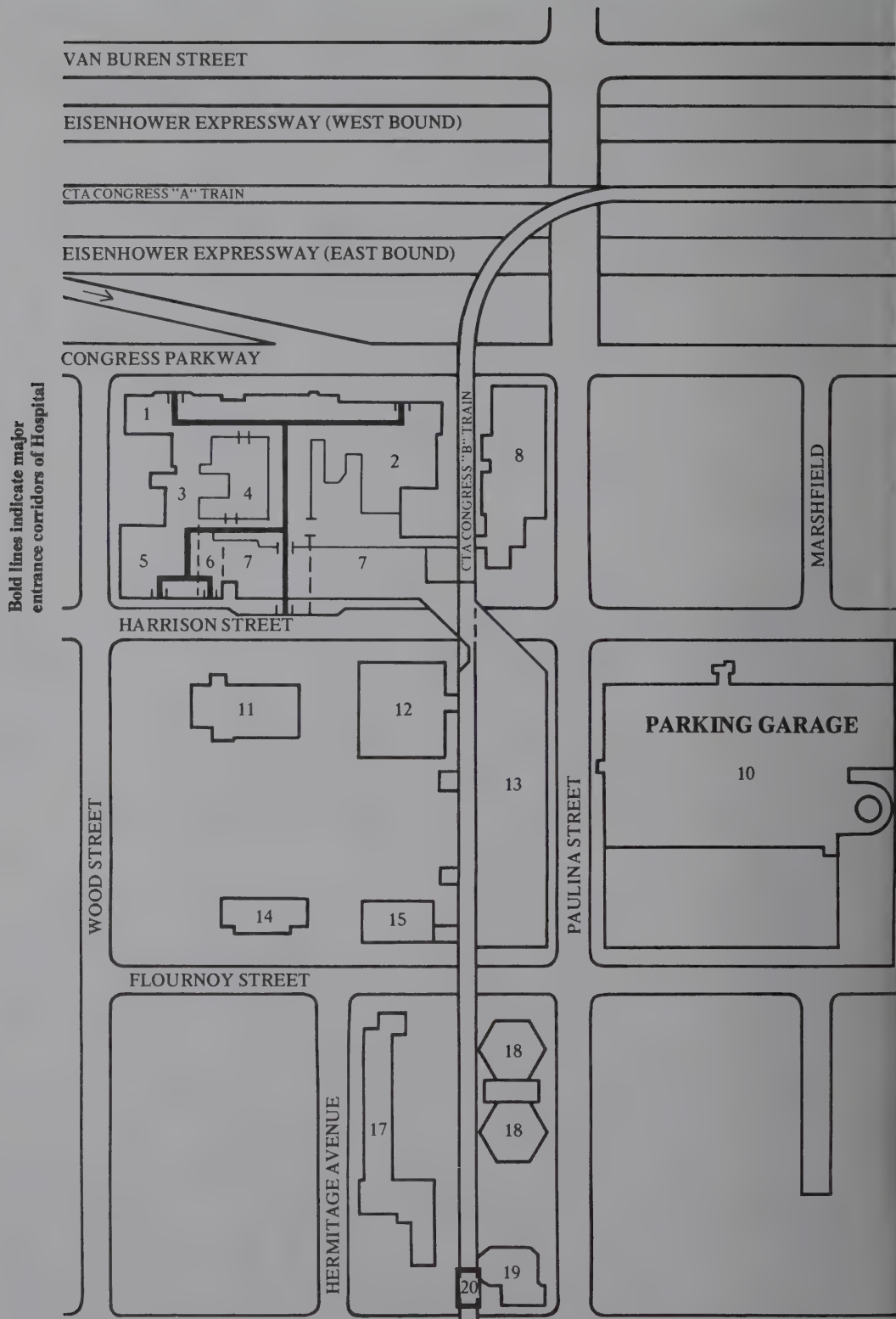
Other types of training: Residents who wish to be trained primarily or exclusively in special fields such as clinical chemistry or hematology may make separate arrangements with the attending biochemists, hematologists, or others who will assume principal responsibility for their training, using such parts of the outlined program as seem desirable to complement their individual specialty programs. Residents who wish to be trained primarily for the practice of medicine or for careers in academic medicine are welcome in this program.

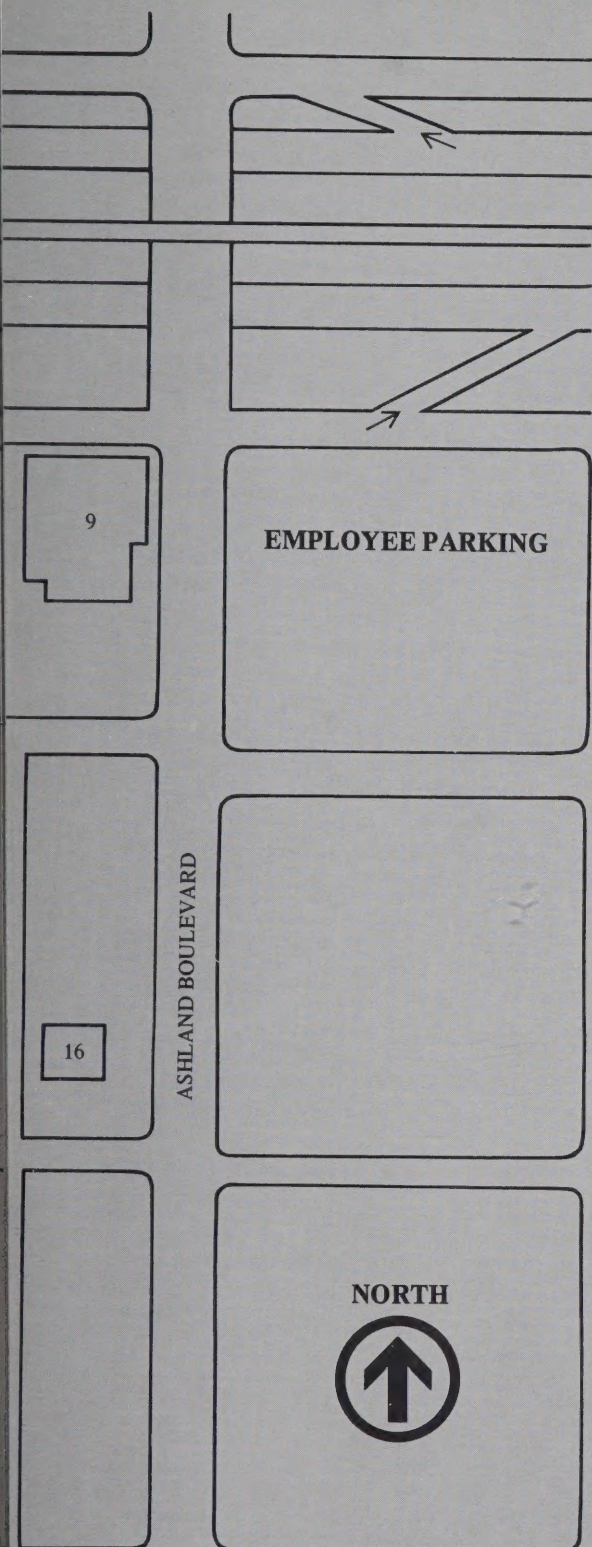
Student and other types of fellowships are available for those who do not follow the full schedule of formal resident training. Residents in the programs of the military services are welcome; many have been assigned here. Graduate students in one of the basic medical sciences may, when qualified, participate in this program.

The program is approved for training in anatomic and clinical pathology by the American Board of Pathology. Approval is given for the appointment and training of 10 post-doctoral residents. All residents upon completion of training have been qualified for examinations by the American Board of Pathology, and all have been certified following examination.



Rush University	James A. Campbell, M.D., President John S. Graettinger, M.D., Dean of Faculty Affairs Joe Swihart, M.S.Ed., Registrar Wayne Franckowiak, B.S., Director, Financial Affairs	John E. Trufant, Ed.D., Director, Center for Educational Resources Robert Leitze, B.A., M.S., Director, Financial Aids
Rush Medical College	William F. Hejna, M.D., Dean, Rush Medical College Maynard M. Cohen, M.D., Acting Associate Dean, Medical Sciences and Services L. Penfield Faber, M.D., Associate Dean, Surgical Sciences and Services George C. Flanagan, M.D., Associate Dean, Curriculum and Evaluation	Leo M. Henikoff, M.D., Associate Dean, Student Affairs Norma L. Wagoner, Ph.D., Assistant Dean, Admissions James Hayashi, Ph.D., Assistant Dean, Instruction Wayne M. Lerner, M.H.A., Assistant Administrator
College of Nursing	Luther Christman, Ph.D., Dean, College of Nursing Yvonne Munn, M.S.N., R.N., Associate Dean, College of Nursing Lucille Davis, Ph.D., R.N., Assistant Dean, Graduate Affairs Mary Ann Eells, Ed.D., Assistant Dean, Undergraduate Affairs Mary J. Glessner, M.A., Assistant Administrator	Ruth Johnsen, A.M., Director of Admissions Barbara Schultz, B.A., Director, High School/College Relations Kathe Brown, M.A., Administrative Assistant, Student Affairs Peggy Lusk, M.A., Counsellor
College of Health Sciences	David I. Cheifetz, Ph.D., Dean, College of Health Sciences and Rush Graduate School Gail L. Warden, M.H.A., Acting Associate Dean, Related Health Programs	Leon Dingle, Jr., Ph.D., Assistant Dean, Related Health Programs John J. Maher, M.B.A., M.H.A., Assistant Administrator
Medical Staff Officers 1976-77	Maurice L. Bogdonoff, M.D., President Milton Weinberg, Jr., M.D., President-elect	Barbara A. Santucci, M.D., Secretary Raymond N. Miller, M.D., Treasurer
House Staff Officers 1976-77	Harold Kessler, M.D., President Alan M. Sadove, M.D., Vice President Dino Delicata, M.D., Secretary	Richard Fogerty, M.D., Treasurer Anthony Savino, M.D., Social Chairman





**Rush-Presbyterian-St. Luke's
Medical Center Campus**

1. Jones Pavilion
 2. East Pavilion
 3. Murdock
 4. Cafeteria
 5. Rawson
 6. Senn
 7. Jelke Southcenter
 8. Coyne Building
 9. Columbia Bank Note Building
(Print Shop and Storage)
 10. Parking Garage
 11. Schweppe-Sprague Building
 12. Professional Building
 13. Academic Facility
 14. Kidston Apartments
 15. McCormick Apartments
 16. Laurance Armour Day School
 17. Marshall Field IV Mental Health Center
 - *18. Johnston R. Bowman Health
Center for the Elderly
 - *19. Central Refrigeration Plant
 20. Polk Street Station, CTA
- *Under Construction

The Medical Center: A Summary

Rush-Presbyterian-St. Luke's Medical Center is the central initiating component of a comprehensive, cooperative health delivery system, serving some 1.5 million people through its own resources and in affiliation with nine community hospitals in northern Illinois.

It is Rush University, and a cooperative educational system which comprises Rush Medical College, the College of Nursing, the College of Health Sciences, and 14 liberal arts colleges and universities in six states from Colorado to Tennessee.

It is Presbyterian-St. Luke's Hospital, a major referral center providing primary care to its immediate community and secondary and tertiary care to patients from across the country.

It is a center for basic and

clinical research in both traditional disciplines and in multidisciplinary centers, coordinating the attack on cancer, cardiovascular disease, and multiple sclerosis.

It is a pioneer in community medicine through its relationship with Mile Square Health Center, the creation of its own Health Maintenance Organization, ANCHOR, and its expanding services in the city and beyond.

In all, Rush-Presbyterian-St. Luke's is an organization of 5,500 people—medical and scientific staff, faculty, students, and employees—committed to providing the best care with the highest professional standards, and with compassionate attention to the needs of every patient.

Approvals

Joint Commission on Accreditation of Hospitals

Department of Registration and Education, State of Illinois

American Medical Association for Internships and Residencies for Physicians

North Central Association of Colleges and Schools

Licences

Department of Public Health, State of Illinois

Memberships

American Hospital Association

Blue Cross Plan for Hospital Care

Illinois Hospital Association

Association of American Medical Colleges

Chicago Hospital Council

Office of Graduate and Continuing
Medical Education
Rush-Presbyterian-St. Luke's
Medical Center
600 South Paulina Street
Chicago, Illinois 60612